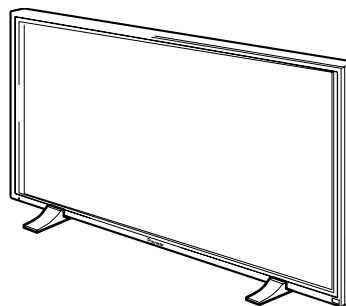


Service Manual



PDP-504CMX

ORDER NO.
ARP3191

PLASMA DISPLAY

PDP-504CMX

PDP-50MXE1

PDP-50MXE1-S

VIDEO CARD

PDA-5003

PDA-5004

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-504CMX	LUC	AC100 - 120V	
PDP-50MXE1	LDFK	AC100 - 240V	
PDP-50MXE1-S	LDFK	AC100 - 240V	
PDA-5003	UCYV	-	
PDA-5004	UCYV	-	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-504CMX, PDP-50MXE1 PDP-50MXE1-S PDA-5003, PDA-5004	ARP3192	SCHEMATIC DIAGRAM, PCB CONNECTION DIAGRAM



For details, refer to "Important symbols for good services".

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.



WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65



NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.

6. Perform the following precautions against unwanted radiation and rise in internal temperature.
 - Always return the internal wiring to the original styling.
 - Attach parts (Gasket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
 - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
 - Make sure that the panel vent does not break. (Check that the cover is attached.)
 - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
 - When the front case is removed, infrared ray is radiated and may disturb reception of the remote control unit.
 - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

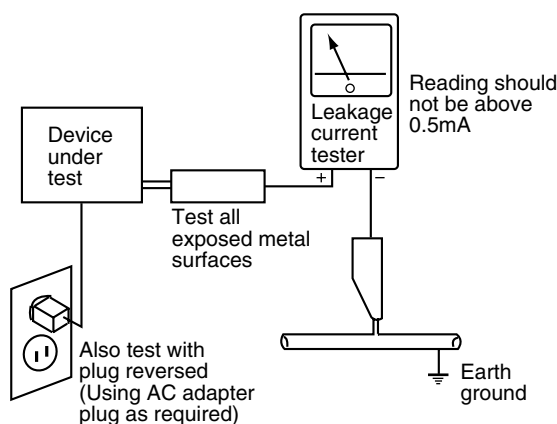
With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of $0.3M\Omega$ and a maximum resistor reading of $5M\Omega$. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).

Turn the AC power switch on.

Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed $0.5mA$.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Δ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

■Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.

If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. AC Power Cord
2. AC Inlet with Filter
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

1. POWER SUPPLY Unit..... (223V)
2. 50 X DRIVE Assy(-230V to 223V)
3. 50 Y DRIVE Assy(353V)
4. 50 SCAN A Assy (353V)
5. 50 SCAN B Assy (353V)
6. X CONNECTOR A Assy (-230V to 223V)
7. X CONNECTOR B Assy (-230V to 223V)

▨ : Part is Charged Section.

□ : Part is the High Voltage Generating Points other than the Charged Section.

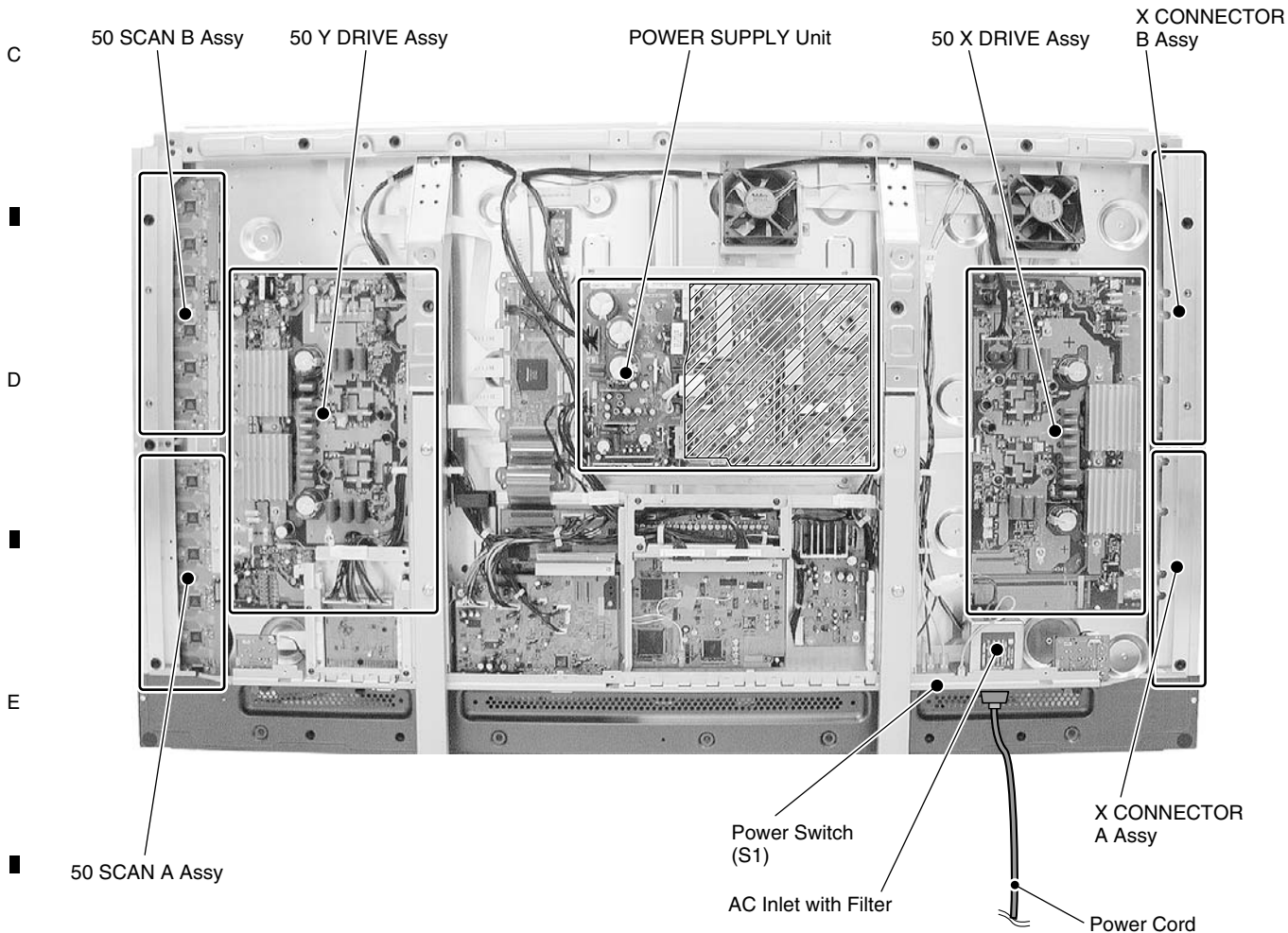


Fig.1 Charged Section and High Voltage Generating Point (Rear View)

[Important symbols for good services]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

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1. SPECIFICATIONS

■ PLASMA DISPLAY

(PDP-504CMX, PDP-50MXE1, PDP-50MXE1-S)

General

Light emission panel 50 inch plasma AC display panel
109.8 (W) x 62.1 (H) x 126.1 (diagonal) cm
Number of pixels 1280 x 768
Power supply AC 100 - 120 V, 50/60 Hz (PDP-504CMX)
Power supply AC 100 - 240 V, 50/60 Hz (PDP-50MXE1)
(PDP-50MXE1-S)
Rated current 3.6 A - 2.9A (PDP-504CMX)
Rated current 3.6 A - 1.5A (PDP-50MXE1)
(PDP-50MXE1-S)
Standby power consumption0.8 W (PDP-504CMX)
Standby power consumption1 W (PDP-50MXE1)
External dimension1218 (W) x 714 (H) x 98 (D) mm
47-31/32 (W) x 28-1/8 (H) x 3-7/8 (D) in.
(including display stand)
..... 1218 (W) x 737 (H) x 300 (D) mm
47-31/32 (W) x 29-1/32 (H) x 11-13/16 (D) in.
Weight 41.0kg
(including display stand) 41.6 kg
Operating temperature range..... 0 to 40 °C
Operating Humidity 20 to 80 %
Operating atmospheric pressure range 760 to 1100 hPa

Input/output

Video

INPUT 1

Input

Mini D-sub 15 pin (socket connector)
RGB signal (G ON SYNC compatible)
RGB ... 0.7 Vp-p/75 Ω/no sync.
HD/VS, VD ... TTL level
/positive and negative polarity
/2.2 kΩ
G ON SYNC
... 1 Vp-p/75 Ω/negative sync.
*Compatible with Microsoft's Plug & Play
(VESA DDC1/2B)

Output

Mini D-sub 15 pin (socket connector)
75 Ω/with buffer

INPUT 2

Input

DVI-D 24-pin connector
Digital RGB signal (DVI compliant
TMDS signal)
*Compatible with Microsoft "Plug & Play"
(VESA DDC 2B)

Audio

Input

AUDIO INPUT (for INPUT 1)
Stereo mini jack
L/R ... 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT 2)
Stereo mini jack
L/R ... 500mVrms/more than 10 kΩ

Output

AUDIO OUTPUT
Stereo mini jack
L/R ... 500mVrms (max)/less than 5 kΩ
SPEAKER
L/R ... 8 - 16 Ω/7W +7W (at 8 Ω)

Control

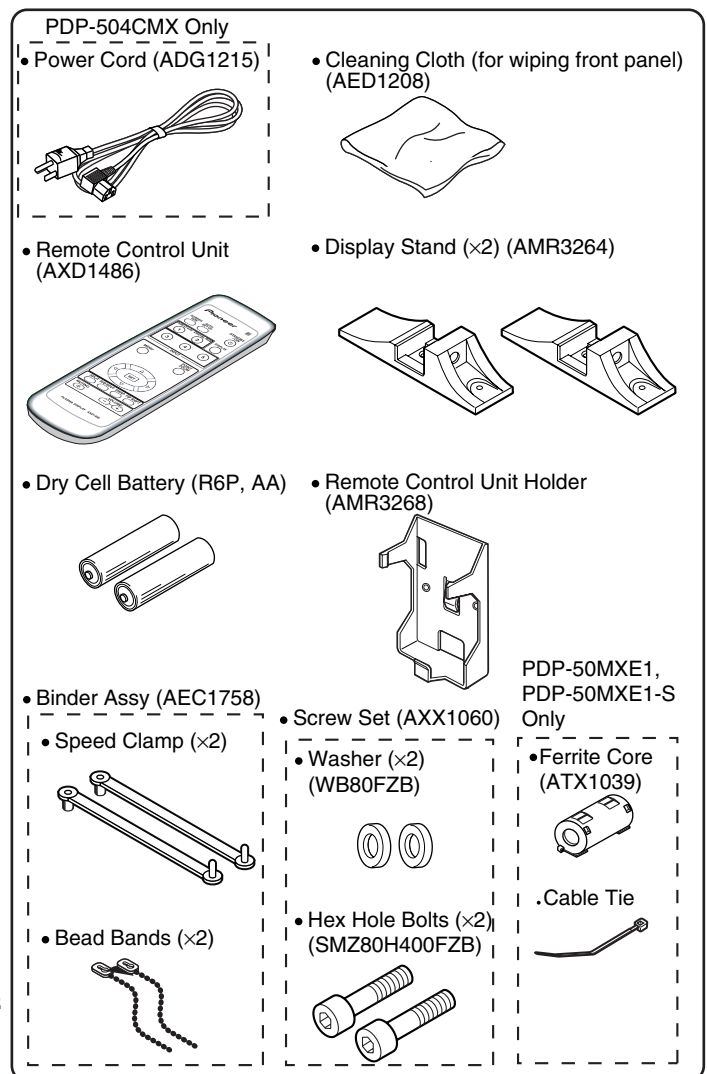
RS-232CD-sub 9 pin (pin connector)
COMBINATION IN/OUT..... Mini DIN 6 pin (x2)

Accessories

Power cord 1 (PDP-504CMX Only)
Remote control unit 1
Remote control unit holder 1
AA (R6) batteries 2
Cleaning cloth (for screen) 1
Speed clamps 2
Bead bands 2
Warranty 1 (PDP-504CMX Only)
Operating Instructions 1
Display stands 2
Washers 2
Hex hole bolts (M8X40) 2
Ferrite core1 (PDP-50MXE1, PDP-50MXE1-S Only)
Cable tie1 (PDP-50MXE1, PDP-50MXE1-S Only)

Due to improvements, specifications and design are subject to change without notice.

● Accessories



VIDEO CARD (PDA-5003, PDA-5004)

PDA-5003

General

External dimensions 301.5 (W) x 27.6 (H) x 144 (D) mm
11-7/8 (W) x 1-1/8 (H) x 5-11/16 (D) in.

Weight 0.4 kg (14 oz)

Operating temperature range 0 to 40 °C (32 to 104 °F)

Input/output

Video

INPUT 3

Input

S terminal (Mini DIN 4 pin)

- Y/C separate video signal

Y 1 Vp-p/75 Ω/negative sync.

C 0.286 Vp-p/75 Ω (NTSC)

0.3 Vp-p/75 Ω (PAL)

INPUT 4

Input

BNC jack

- Composite video signal

1 Vp-p/75 Ω/negative sync.

Output

BNC jack

75 Ω /with buffer

INPUT 5

Input

BNC jack (x5)

RGB signal (G ON SYNC compatible)

RGB ... 0.7 Vp-p/75 Ω/no sync.

HD/VS, VD ... TTL level

/positive and negative polarity/

75 Ω or 2.2 kΩ

(impedance switch)

G ON SYNC ...

1 Vp-p/75 Ω/negative sync.

Audio

Input

AUDIO INPUT (for INPUT 3/4)

Pin jack (x2)

L/R ... 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT 5)

Pin jack (x2)

L/R ... 500mVrms/more than 10 kΩ

PDA-5004

General

External dimensions 301.5 (W) x 27.6 (H) x 144 (D) mm
11-7/8 (W) x 1-1/8 (H) x 5-11/16 (D) in.

Weight 0.4 kg (14 oz)

Operating temperature range 0 to 40 °C (32 to 104 °F)

Input/output

Video

INPUT 3

Input

S terminal (Mini DIN 4 pin)

- Y/C separate video signal

Y 1 Vp-p/75 Ω/negative sync.

C 0.286 Vp-p/75 Ω (NTSC)

0.3 Vp-p/75 Ω (PAL)

INPUT 4

Input

BNC jack

- Composite video signal

1 Vp-p/75 Ω/negative sync.

Output

BNC jack

75 Ω /with buffer

INPUT 5

Input

RCA connector

- Component video signal

Y 1 Vp-p / 75 Ω negative sync.

P_B/C_B, P_R/C_R

0.7 Vp-p (color 100%) / 75 Ω

- RGB signal (G ON SYNC)

G ON SYNC .. 1Vp-p/75 Ω/negative sync.

R/B0.7 Vp-p/75 Ω/no sync.

Audio

Input

AUDIO INPUT (for INPUT 3)

Pin jack (x2)

L/R 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT 4)

Pin jack (x2)

L/R 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT 5)

Pin jack (x2)

L/R 500mVrms/more than 10 kΩ

Accessories

Label for remote control unit..... 1

Connector indicator label..... 1

Screws 2

Operating Instructions..... 1

Warranty 1

Due to improvements, specifications and design are subject to change without notice.

4

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B

PACKING Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Upper Carton	See Contrast table(2)	22	Ferrite Core	See Contrast table(2)
2	Under Carton	AHD3037	NSP 23	Warranty Card	See Contrast table(2)
3	Pad	AHA2280	NSP 24	Vinyl Bag	See Contrast table(2)
4	Mirror Mat	AHG1284	25	•••••	
5	Front Sheet	AHB1241			
6	Cord Case	AHC1037	26	Vinyl Bag	AHG1330
7	Accessory Case Assy	See Contrast table(2)	27	Caution Sheet	ARM1201
⚠ 8	AC Power Cord	See Contrast table(2)	28	Remote Control Unit	AXD1486
9	Operating Instructions (Italian/Spanish/Dutch/Chinese)	See Contrast table(2)	29	Plasma Caution Sheet	ARM1145
10	Operating Instructions (Japanese/English/French)	See Contrast table(2)	30	Plasma Caution Sheet	ARM1147
11	Operating Instructions (English/French/German)	See Contrast table(2)	31	Plasma Caution Sheet	ARM1149
			32	Caution Sheet	ARM1176
			33	Caution Sheet	ARM1200
			34	•••••	
			35	Image Caution Sheet	ARM1220
NSP 12	Battery (R6P, AA)	VEM1031			
13	Reomote Control Holder	AMR3268	36	Caution Sheet	ARM1221
14	Display Stand	AMR3264	NSP 37	Warranty Card	See Contrast table(2)
15	Binder Assy (Speed Clamp x2, Bead Band x2)	AEC1758	38	Battery Cover	AZN2462
			39	Image Stick Caution	See Contrast table(2)
16	Wiping Cloth (for screen)	AED1208			
17	•••••				
18	•••••				
19	Screws Set	AXX1060			
20	Washer	WB80FZB			
21	Bolt	SMZ80H400FZB			

(2) CONTRAST TABLE

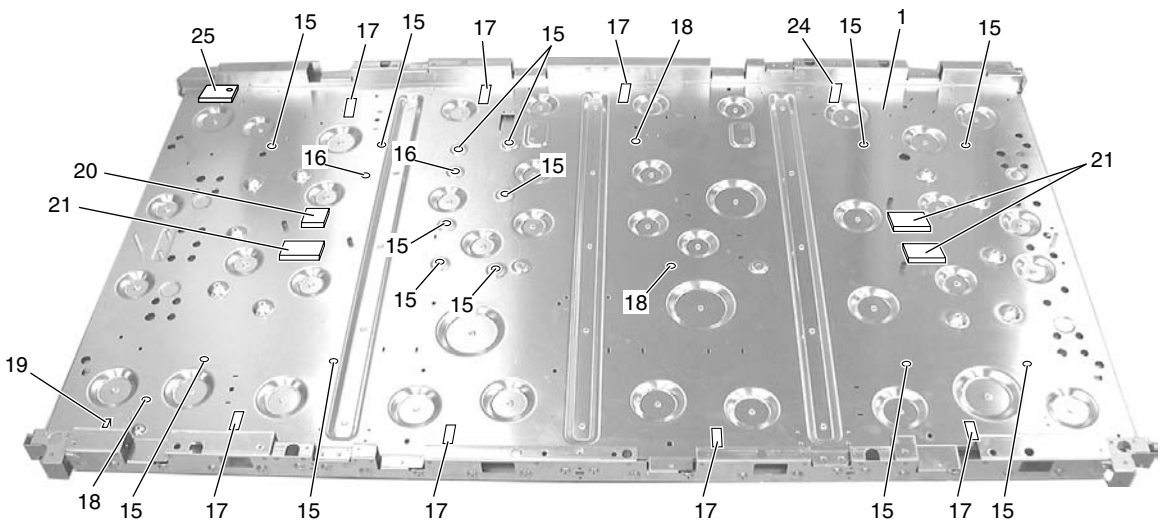
PDP-504CMX/LUC, PDP-504MXE1/LDFK and PDP-504MXE1-S/LDFK are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-504CMX/ LUC	PDP-504MXE1/ LDFK	PDP-504MXE1-S/ LDFK
	1	Upper Carton (504CMX)	AHD3216	Not used	Not used
	1	Upper Carton (50MXE1)	Not used	AHD3218	Not used
	1	Upper Carton (50MXE1-S)	Not used	Not used	AHD3219
NSP	7	Accessory Case Assy (CMX)	AXX1065	Not used	Not used
NSP	7	Accessory Case Assy (MXE)	Not used	AXX1066	AXX1066
⚠	8	AC Power Cord	ADG1215	Not used	Not used
	9	Operating Instructions (Italian/Spanish/Dutch/Chinese)	Not used	ARC1527	ARC1527
	10	Operating Instructions (Japanese/English/French)	ARD1055	Not used	Not used
	11	Operating Instructions (English/French/German)	Not used	ARE1377	ARE1377
	22	Ferrite Core	Not used	ATX1039	ATX1039
NSP	23	Warranty Card	ARY1093	Not used	Not used
NSP	24	Vinyl Bag	AHG-195	Not used	Not used
NSP	37	Warranty Card	ARY1146	Not used	Not used
	39	Image Stick Caution	ARM1240	Not used	Not used

1 2 3 4

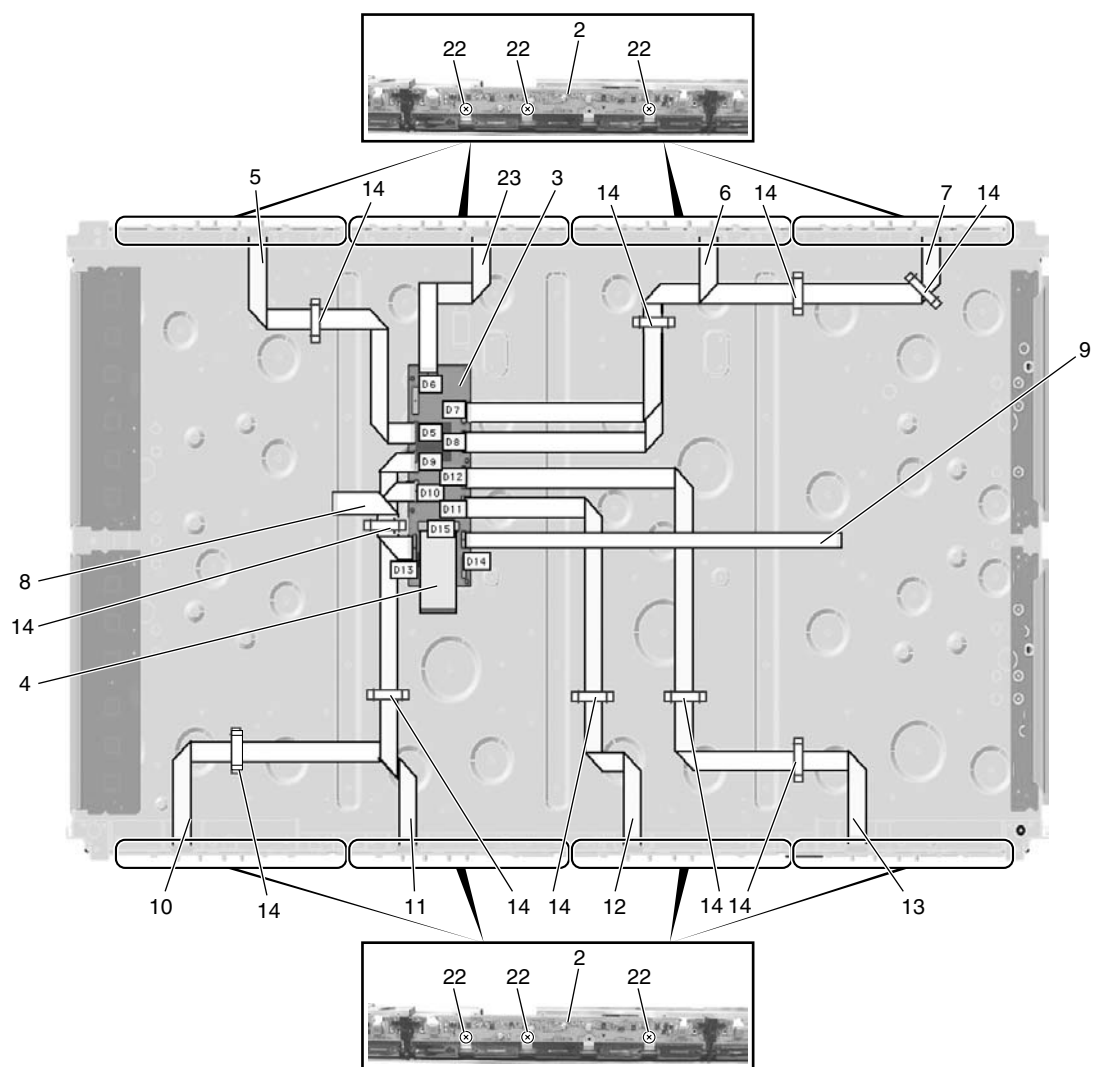
2.2 CHASSIS SECTION (1)

A



B

C



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CHASSIS SECTION (1) parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
NSP 1	P. Chassis (50) Assy	AWU1081
NSP 2	50 ADDRESS Assy	AWZ6839
3	DIGITAL VIDEO Assy	AWV2100
4	FPC (114P)	ADY1081
5	Flexible Cable (J201)	ADD1248
6	Flexible Cable (J203)	ADD1250
7	Flexible Cable (J204)	ADD1251
8	Flexible Cable (J209)	ADD1236
9	Flexible Cable (J210)	ADD1237
10	Flexible Cable (J205)	ADD1252
11	Flexible Cable (J206)	ADD1253
12	Flexible Cable (J207)	ADD1254
13	Flexible Cable (J208)	ADD1255
14	Flat Clamp	AEC1879
15	PCB Spacer	AEC1941
16	PCB Support	AEC1938
17	Wire Saddle	AEC1745
18	PCB Spacer	AEC1947
19	Wire Clip	AEC1948
20	Drive Silicone Sheet C	AEH1066
21	Drive Silicone Sheet B	AEH1065
22	Screw	VBB30P080FNI
23	Flexible Cable (J202)	ADD1249
24	Wire Clip	AEC1992
25	Siricon Sheet SC	AEH1076

1 2 3 4

2.3 CHASSIS SECTION (2)

A

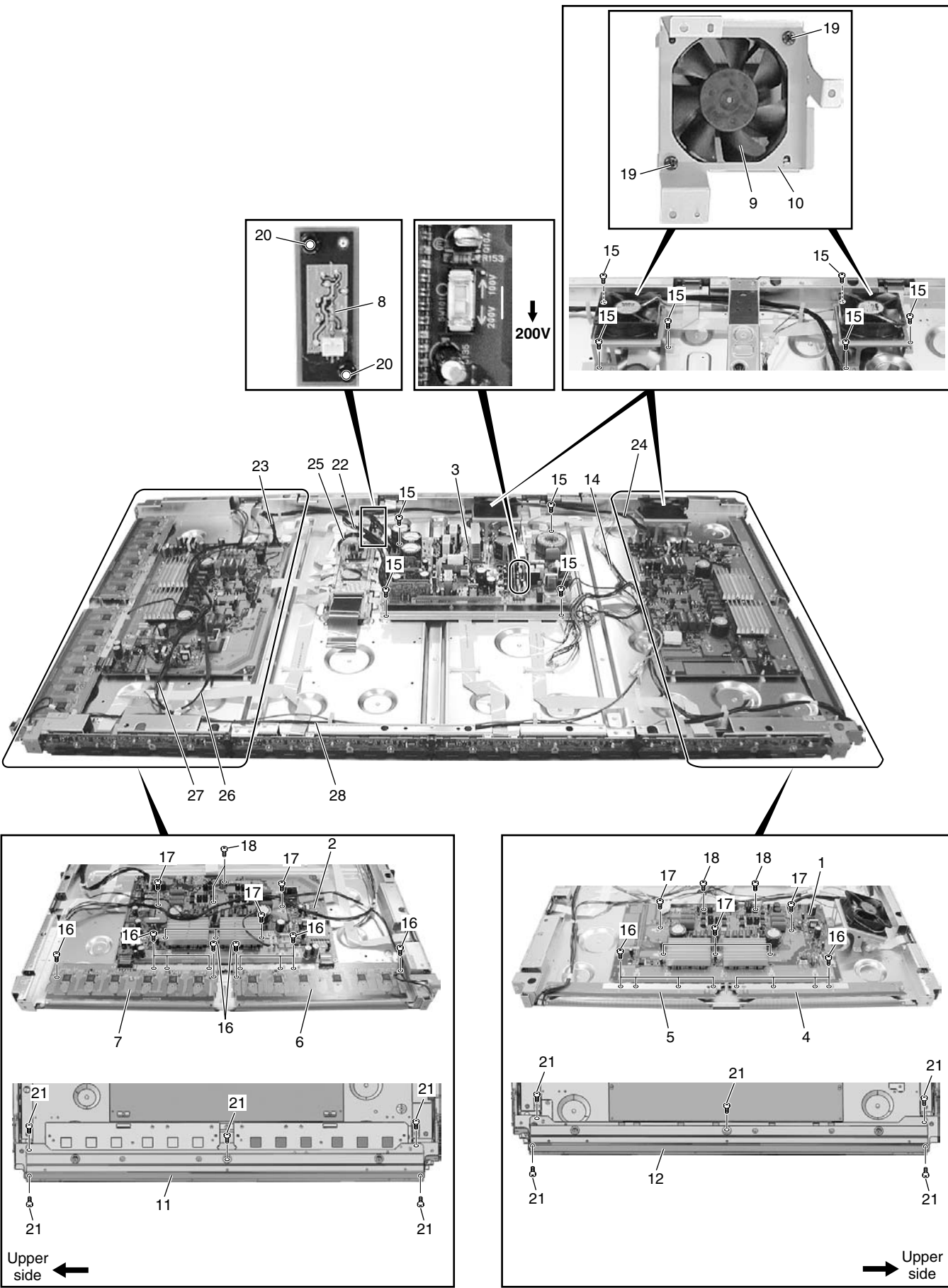
B

C

D

E

F



CHASSIS SECTION (2) parts List

Mark	No.	Description	Part No.
	1	50 X DRIVE Assy	AWZ6808
	2	50 Y DRIVE Assy	AWV2035
⚠	3	POWER SUPPLY Unit	AXY1083
NSP	4	X CONNECTOR B Assy	AWZ6811
NSP	5	X CONNECTOR A Assy	AWZ6812
NSP	6	50 SCAN A Assy	AWZ6809
NSP	7	50 SCAN B Assy	AWZ6810
	8	PANEL SENSOR Assy	AWZ6795
	9	Fan Motor (80 x 25)	AXM1044
	10	Fan Angle	ANG2609
	11	F. Chassis VL (50M)	ANA1753
	12	F. Chassis VR (50M)	ANA1754
	13	•••••	
	14	Housing Wire (J117)	ADX2897
	15	Screw	ABZ30P060FMC
	16	Screw	PMB30P060FNI
	17	Screw	VBB30P080FNI
	18	Screw	PMB40P080FZK
	19	Screw	PPZ50P100FZK
	20	Nylon Rivet	AEC1671
	21	Screw	AMZ30P060FZK
	22	3P Housing Wire (J109)	ADX2847
	23	11P Housing Wire (J102)	ADX2853
	24	12P Housing Wire (J103)	ADX2854
	25	Wire A (J101)	ADX2839
	26	WireD (J118)	ADX2898
	27	Wire E (J119)	ADX2909
	28	9P Housing Wire (J115)	ADX2895

1 2 3 4

2.4 FRAME SECTION

A

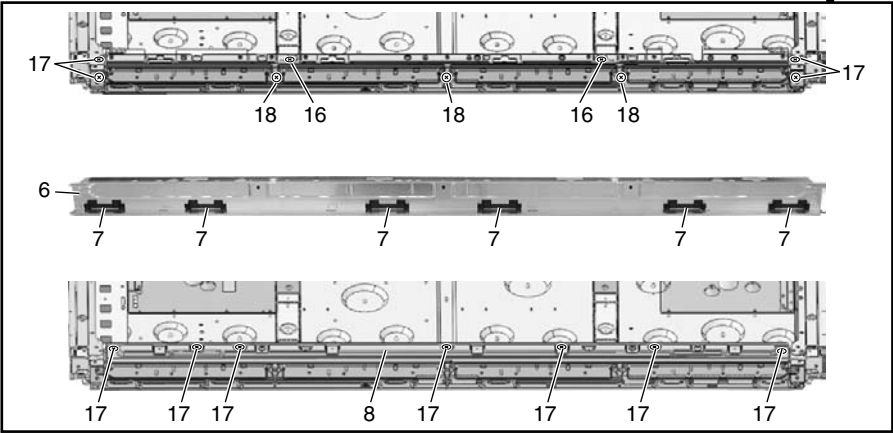
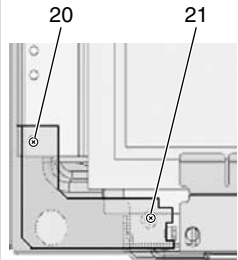
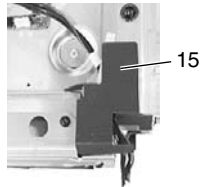
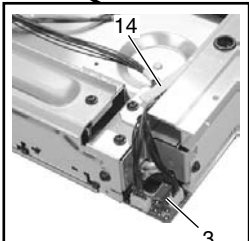
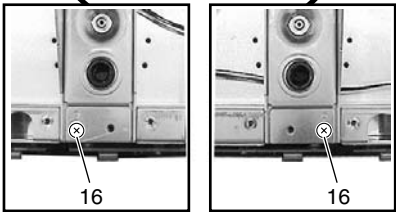
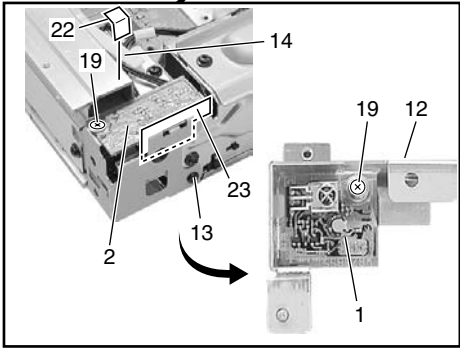
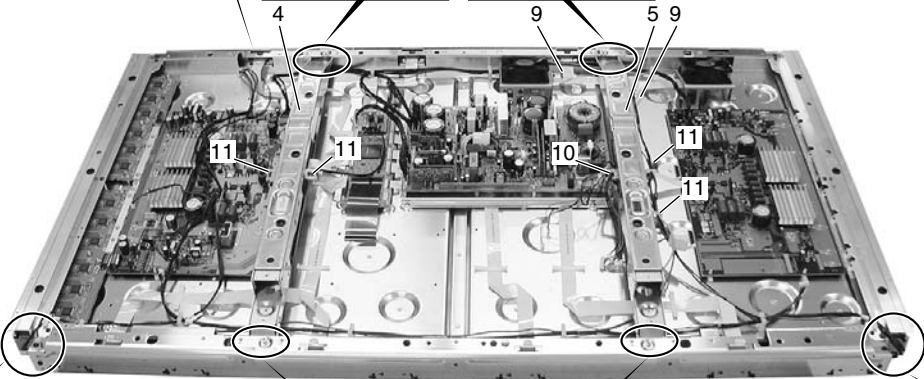
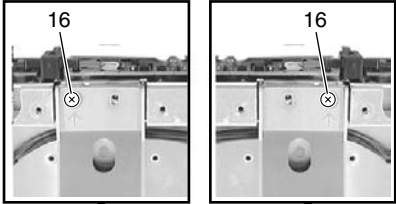
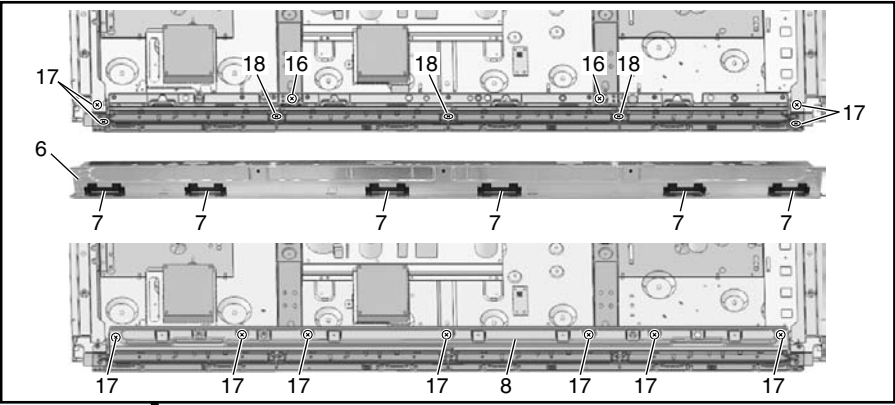
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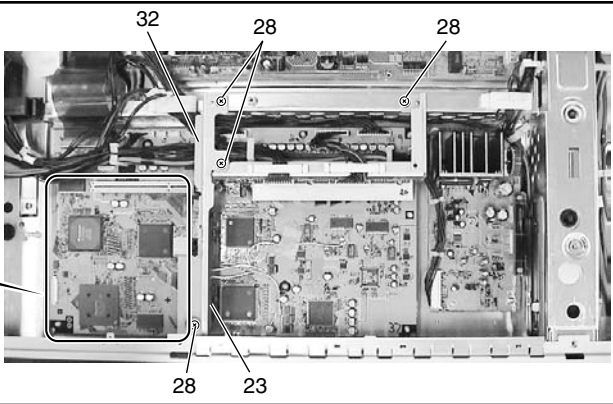


FRAME SECTION parts List

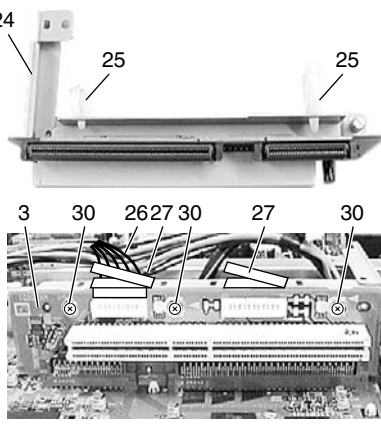
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	IR RECEIVE Assy	AWZ6855
2	KEY CONTROL Assy	AWZ6853
3	LED OPT Assy	AWZ6854
4	Sub Frame L Assy (50M)	ANG2596
5	Sub Frame R Assy (50M)	ANG2598
NSP 6	Front Chassis H (50)	ANA1733
7	Front Spacer (CMX)	AMR3384
8	Rear Frame (50M)	ANG2602
9	Wire Clip	AEC1948
10	Wire Clip	AEC1992
11	Wire Saddle	AEC1745
NSP 12	IR Holder	ANG2551
13	Nylon Rivet	AEC1671
14	Flat Clamp	AEC1879
15	Enclosure Sheet 1	AMR3405
16	Screw	AMZ30P080FMC
17	Screw	AMZ30P060FZK
18	Screw	APZ30P080FZK
19	Screw	ABZ30P060FMC
20	Nylon Rivet	AEC1997
21	Screw	BBZ30P050FMC
22	Enclosure Sheet 2 (V)	AMR3411
23	Enclosure Sheet 3	AMR3407

4

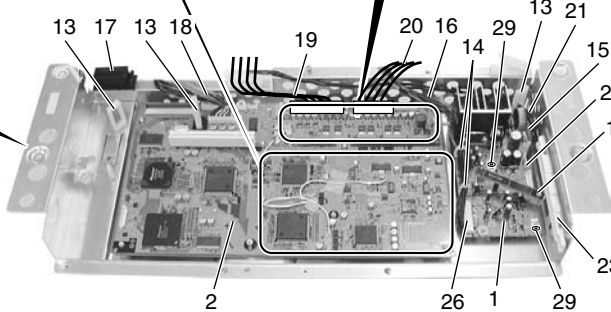
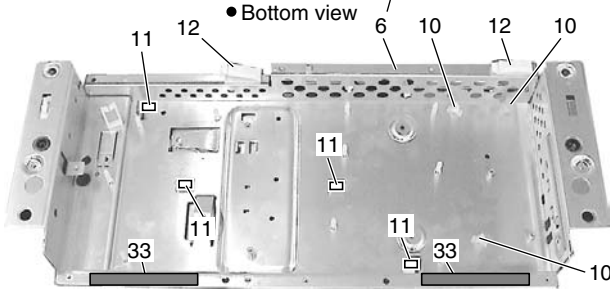
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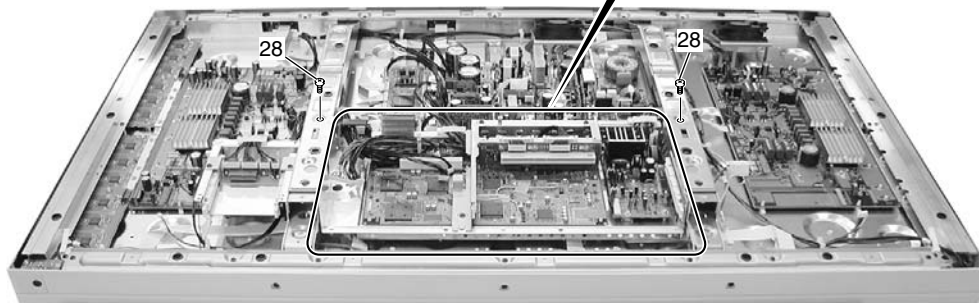
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MULTI BASE SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	AUDIO AMP Assy	AWZ6848	18	10/11P Housing Wire (J110)	ADX2890
2	RGB Assy	AWZ6883	19	10P Housing Wire (J113)	ADX2908
3	VIDEO SLOT I/F Assy	See Contrast table(2)	20	12P Housing Wire (J112)	ADX2892
4	AV I/O Assy	See Contrast table(2)			
5	AV I/O I/F Assy	AWZ6859	21	13P/6P Housing Wire (J104)	ADX2910
			22	COVER Assy	AWZ6858
NSP 6	Multi Base (CMX)	ANA1757	23	Guide Rail EX	AEC1994
NSP 7	PCB Holder	AEC1088	24	Slot Stay	ANG2608
8	PCB Spacer	AEC1991	25	Wire Saddle	AEC1745
9	Gasket C-M	ANK1737			
10	Locking Card Spacer	AEC1429	26	11P Housing Wire (J111)	ADX2891
			27	Flat Clamp	AEC1879
11	Ground Finger	ANG2468	28	Screw	AMZ30P060FZK
12	Clamp	AEC1884	29	Screw	PMB30P060FNI
13	Wire Saddle	AEC1989	30	Screw	VBB30P080FNI
14	Mini Clamp	AEC1971			
15	Double Locking Spacer	AEC1988	31	Pin Grommet	AEC1015
			32	Video Stay	ANG2607
16	15P/16P Housing Wire (J106)	ADX2907	33	Gasket M-T	ANK1738
17	Cable Clamp	AEC1707			

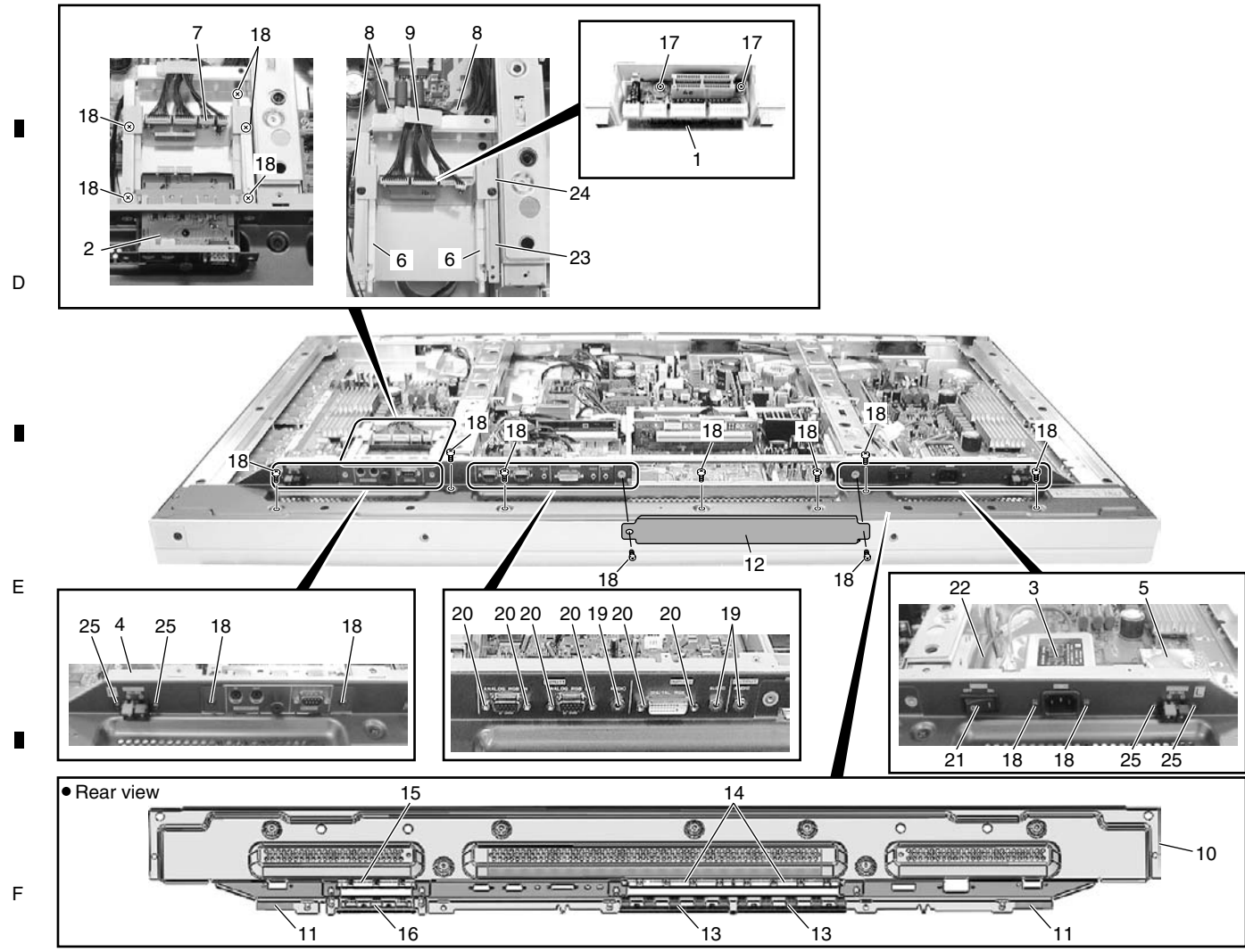
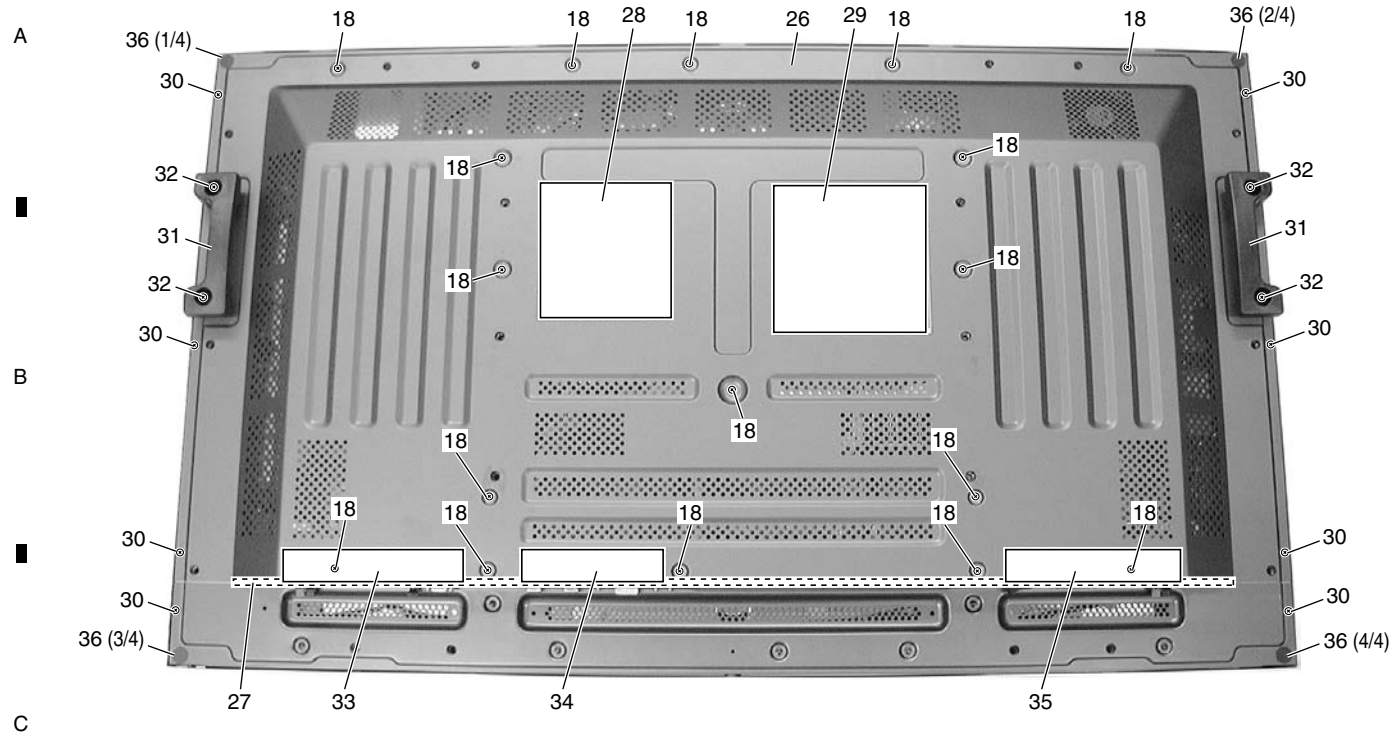
(2) CONTRAST TABLE

PDP-504CMX/LUC, PDP-504MXE1/LDFK and PDP-504MXE1-S/LDFK are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-504CMX/ LUC	PDP-504MXE1/ LDFK	PDP-504MXE1-S/ LDFK
	3	VIDEO SLOT I/F Assy	AWZ6851	AWZ6901	AWZ6901
	4	AV I/O Assy	AWZ6847	AWZ6893	AWZ6893

1 2 3 4

2.6 TERMINAL PANEL and REAR SECTION



TERMINAL PANEL and REAR SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	COMM SLOT I/F Assy	AWZ6850	20	Hexagon Head Screw	BBA1051
2	COMM SLOT Assy	AWZ6849	21	Power Switch (S1)	ASG1094
3	AC Inlet (CN1)	AKP1255	22	Housing Wire (MX)(J116)	ADX2896
4	SP TERMINAL R Assy	See Contrast table(2)	23	COMM Stay A	ANG2605
5	SP TERMINAL L Assy	AWZ6856	24	COMM Stay B	ANG2606
6	Guide Rail EX	AEC1994	25	Screw	APZ30P060FZK
7	6P Housing Wire (J108)	ADX2889	26	Rear Case (50M)	ANE1623
8	Wire Saddle	AEC1745	27	Gasket T-R50	ANK1735
9	Clamp	AEC1884	NSP 28	Name Label	See Contrast table(2)
10	Terminal Panel (504CMX)	ANG2603	29	Caution Label	AAX3048
11	Gasket SP-T	ANK1734	30	Screw	TBZ40P080FZK
12	Slot Panel 262 (N)	ANG2610	31	Grip	AMR3380
13	Slot Spring B126	ABK1033	32	Screw	HMB50P140FZK
14	Slot Spring T130	ABK1032	33	Terminal Label R (50M2)	AAX3063
15	Slot Spring T94	ABK1034	34	Terminal Label C (M)	AAX3064
16	Slot Spring B92	ABK1035	35	Terminal Label L	See Contrast table(2)
17	Screw	VBB30P080FNI	36	Rear Corner Label (15)	AAX3081
18	Screw	AMZ30P060FZK			
19	Nut	ABN1040			

(2) CONTRAST TABLE

PDP-504CMX/LUC, PDP-504MXE1/LDFK and PDP-504MXE1-S/LDFK are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-504CMX/ LUC	PDP-504MXE1/ LDFK	PDP-504MXE1-S/ LDFK
	4	SP TERMINAL R Assy	AWZ6857	AWZ6896	AWZ6896
NSP	28	Name Label (504CMX)	AAL2516	Not used	Not used
NSP	28	Name Label (50MXE1)	Not used	AAL2517	Not used
NSP	28	Name Label (50MXE1-S)	Not used	Not used	AAL2519
	35	Terminal Label L (50M)	AAX3061	Not used	Not used
	35	Terminal Label L (MXE)	Not used	AAX3065	AAX3065

1 2 3 4

2.7 FRONT SECTION

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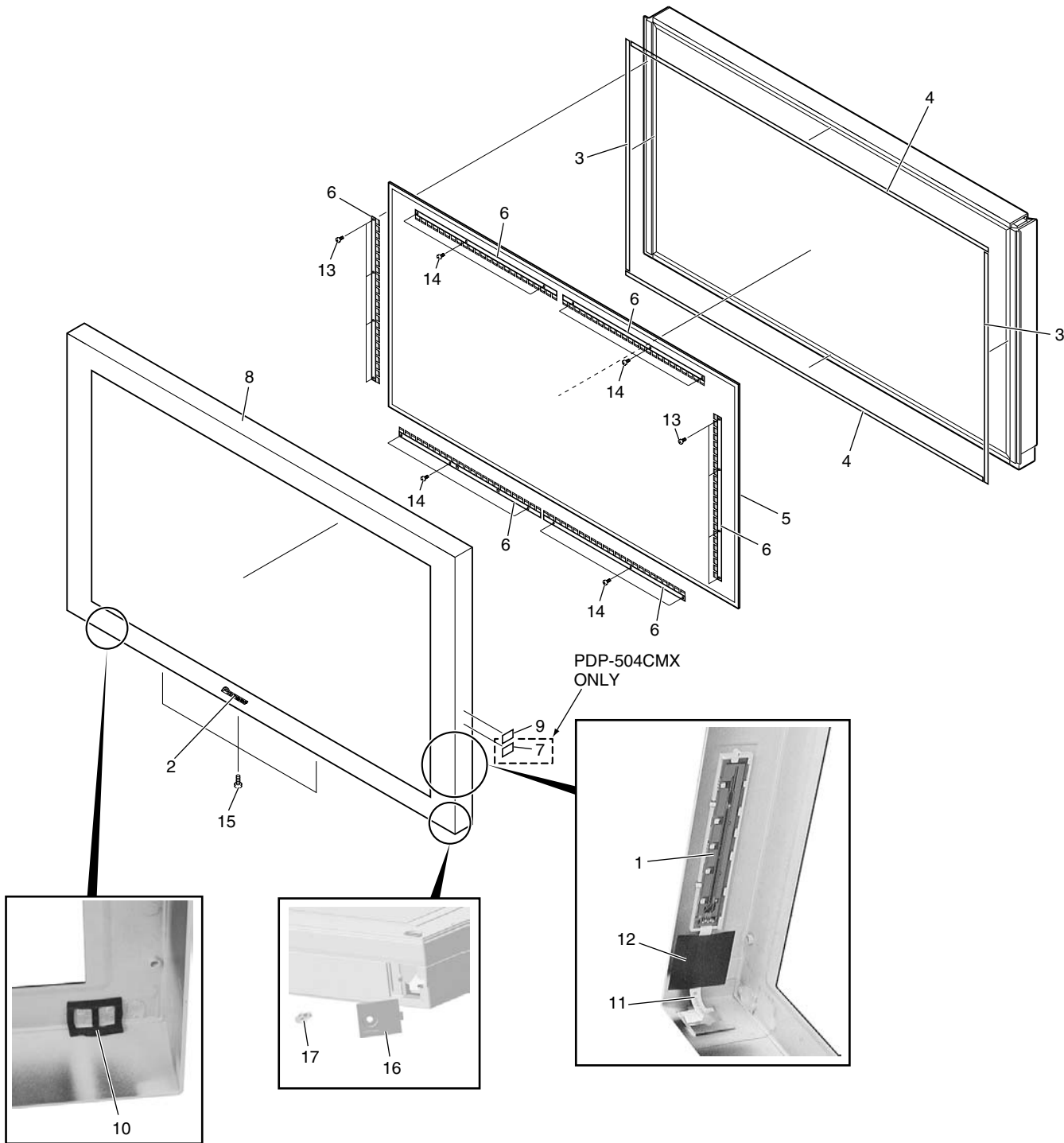
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FRONT SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	SIDE KEY Assy	AWZ6852	11	Flexible Cable (J211)	ADD1256	A
2	PIONEER Badge	AAM1101	12	Flexible Seal	AEH1074	
3	Panel Cushion V	AED1199	13	Screw	ABZ30P060FMC	
4	Panel Cushion H	AED1226	14	Screw	APZ30P080FZK	
⚠ 5	Protect Panel Assy (50)	AMR3348	15	Screw	APZ30P120FZK	
NSP 6	Panel Holder (50)	ANG2563	16	Lead Cover	See Contrast table(2)	
7	Display Label	See Contrast table(2)	17	Rivet	AEC1877	
8	Front Case	See Contrast table(2)				
9	Energy Star Label	See Contrast table(2)				
10	Blind Cushion	AEB1400				

(2) CONTRAST TABLE

PDP-504CMX/LUC, PDP-504MXE1/LDFK and PDP-504MXE1-S/LDFK are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-504CMX/ LUC	PDP-504MXE1/ LDFK	PDP-504MXE1-S/ LDFK
	7	Display Label	AXX2836	Not used	Not used
	8	Front Case 504 (CMX)	AMB2788	AMB2788	Not used
	8	Front Case 504S (CMX)	Not used	Not used	AMB2797
	9	Energy Star Label	AAX2856	AAX2856	AAX2865
	16	Lead Cover (4G)	AMR3394	AMR3394	Not used
	16	Lead Cover S (4G)	Not used	Not used	AMR3395

2.8 PANEL CHASSIS (50) ASSY (AWU1081)

Panel Chassis (50) Assy (AWU1081)

• Parts List

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Mark No.	Description	Part No.
NSP	1..50 ADDRESS Assy	AWV2069
NSP	2..50 ADDRESS Assy	AWZ6839
NSP	1..50 SCAN FUKUGO Assy	AWV2036
NSP	2..50 SCAN A Assy	AWZ6809
NSP	2..50 SCAN B Assy	AWZ6810
NSP	2..X CONNECTOR A Assy	AWZ6811
NSP	2..X CONNECTOR B Assy	AWZ6812
	Address Module (IC1-IC40)	AXF1116
B	Plasma Panel Assy (50")(V1)	AAV1244
NSP	FPC (50XGA-X)	ADY1084
NSP	FPC (50XGA-Y)	ADY1085
NSP	Chassis Assy (50)	ANA1774
	Edge Card Spacer	AEC1998
	PCB Spacer	AEC1944
	PCB Support	AEC1958
	Rivet	AMR1066
	FC Spacer	AMR3370
C	Adhesive	ZBA-KE3424G
NSP	Cleaner	ZLX-AP7
NSP	Tape	ZTA-8101-12
NSP	Double Faced Tape	ZTB-5015-18
NSP	Tape	ZTC-POLYCA-11
	Tape	ZTC-POLYCA-20
NSP	Tape	ZTB-5015-9
NSP	Tape	ZTC-900UL-15
NSP	Silicone Rubber	ZTX-HC20-15
NSP	Wiping Cloth	ZTX-MX100-13
D	Film	ZTX-2102Y35-2R5
NSP	Film	ZTX-2102Y45-5
NSP	Silicone Rubber	ZTX-HC50-15
NSP	Silicone Rubber	ZTC-EM7KBOR85T-15W

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2.9 PDP SERVICE ASSY (AWU1095)

PDP SERVICE Assy (AWU1095)

• Parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
NSP	P. Chassis (50) Assy	AWU1081
NSP	Front Chassis H (50)	ANA1733
	F. Chassis VL (50M)	ANA1753
	F. Chassis VR (50M)	ANA1754
	Sub Frame L Assy (50M)	ANG2596
	Sub Frame R Assy (50M)	ANG2598
	Rear Frame (50M)	ANG2602
NSP	SVC.Terminal P504CMX	ANG2680
	Wire Saddle	AEC1745
	PCB Support	AEC1938
	PCB Spacer	AEC1941
	PCB Spacer	AEC1947
	Wire Clip	AEC1948
	Panel Cushion V	AED1199
	Panel Cushion H	AED1226
	Front Spacer (CMX)	AMR3384
	Wire Clip	AEC1992
	Enclosure Sheet 1	AMR3405
	Enclosure Sheet 2 (V)	AMR3411
	Caution Label	AAX3031
NSP	Drive Voltage Label	ARW1097
	Screw	AMZ30P060FZK
	Screw	AMZ30P080FMC
	Screw	APZ30P080FZK
	Screw	APZ30P120FZK
	Screw	TBZ40P080FZK
	Screw	VBB30P080FNI
NSP	Front Case (504CMX SVC)	AMB2839
	Rear Case (50M)	ANE1623
	Pad	AHA2280
	Under Carton	AHD3037
NSP	Upper Carton 504CMX S	AHD3256
	Protect Sheet	AHG1331
	Siricon Sheet SC	AEH1076

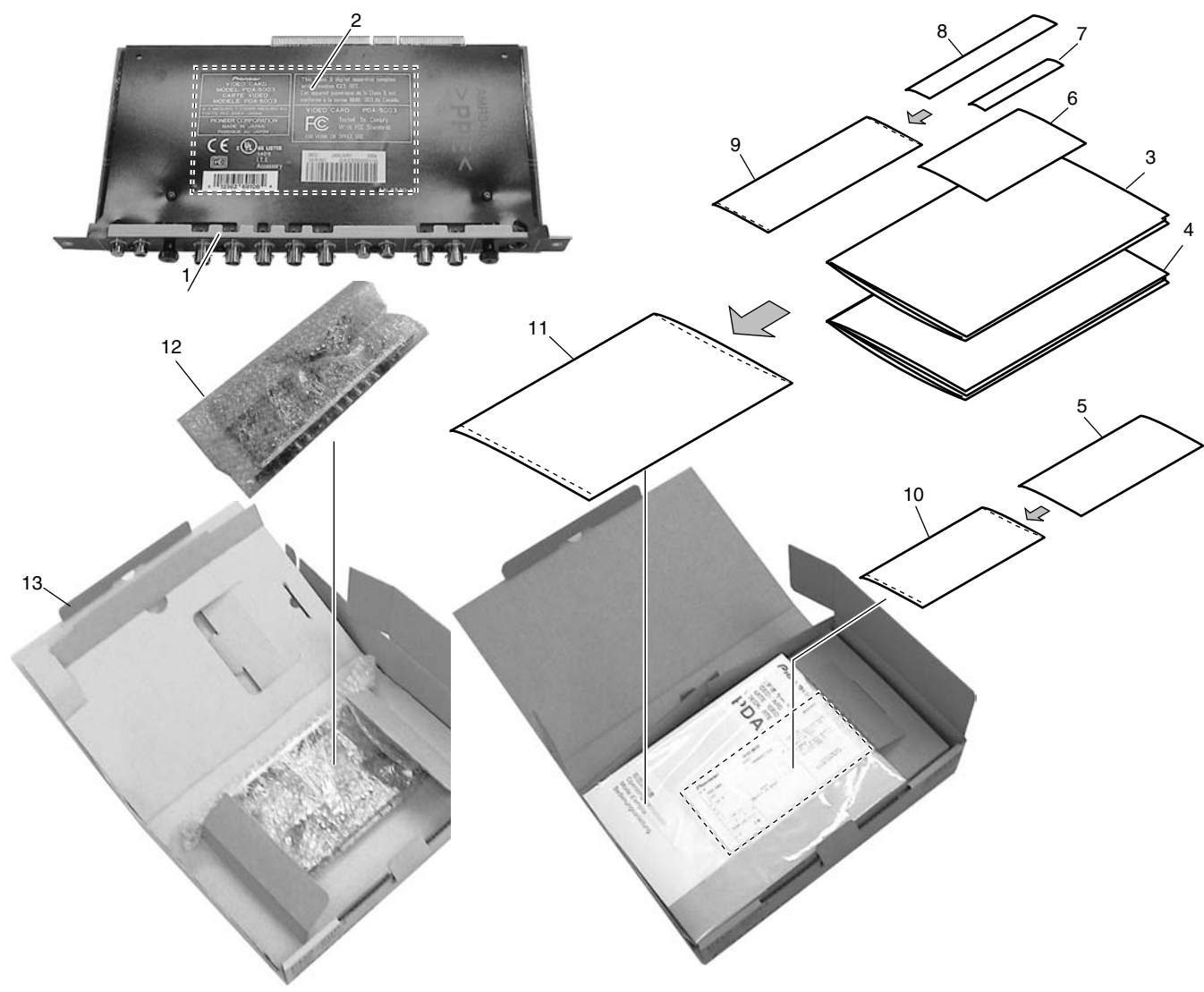
1 2 3 4

2.10 VIDEO CARD

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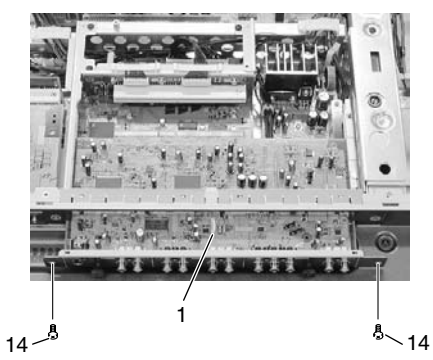
• Packing

Photos and illustrations are the PDA-5003, however the packing method of the PDA-5004 is the same as the PDA-5003.



D

• Exterior



VIDEO CARD parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	VIDEO SLOT 1 Assy	See Contrast table(2)	8	Terminal Label	See Contrast table(2)
NSP 2	Name Label	See Contrast table(2)	NSP 9	Vinyl Bag	AHG-064
3	Operating Instructions (Italian/Spanish/Dutch/Chinese)	ARC1528	NSP 10	Vinyl Bag	AHG-195
4	Operating Instructions (Japanese/English/French/German)	ARD1056	11	Vinyl Bag	AHG1310
			12	Sheet	AHG1344
			13	Packing Case	See Contrast table(2)
NSP 5	Warranty Card	ARY1093	14	Screw	AMZ30P060FZK
NSP 6	Warranty Card	ARY1137			
7	Label	AAX3051			

(2) CONTRAST TABLE

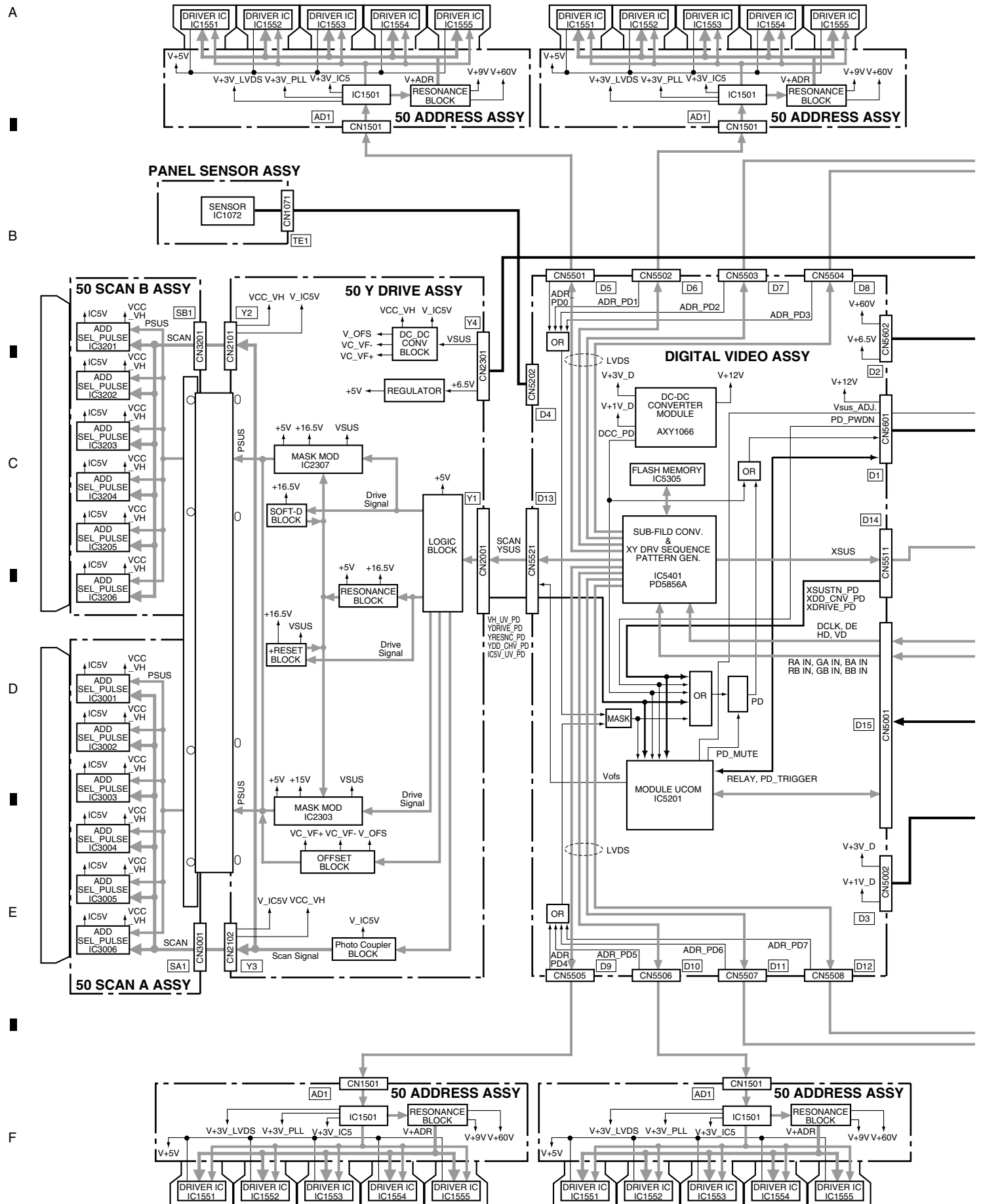
PDA-5003/UCYV and PDA-5004/UCYV are constructed the same except for the following:

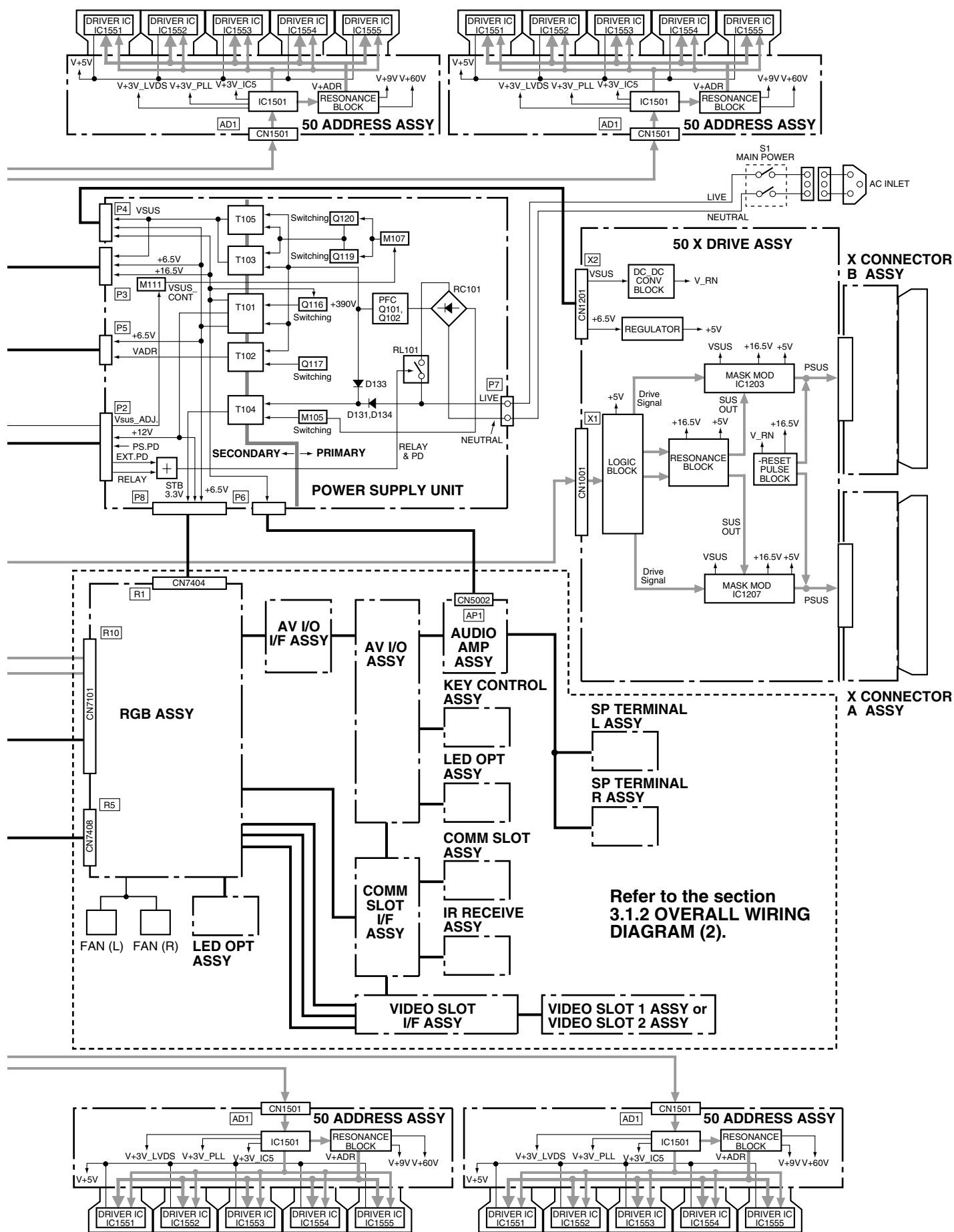
Mark	No.	Symbol and Description	PDA-5003/ UCYV	PDA-5004/ UCYV
	1	VIDEO SLOT 1 Assy	AWV2097	Not used
	1	VIDEO SLOT 2 Assy	Not used	AWV2098
NSP	2	Name Label (5003)	AAL2520	Not used
NSP	2	Name Label (5004)	Not used	AAL2521
	8	Terminal Label (5003)	AAX3053	Not used
	8	Terminal Label (5004)	Not used	AAX3054
	13	Packing Case	AHD3220	AHD3221

3. BLOCK DIAGRAM AND SCHEMATIC DIAHGRAM

3.1 BLOCK DIAGRAM

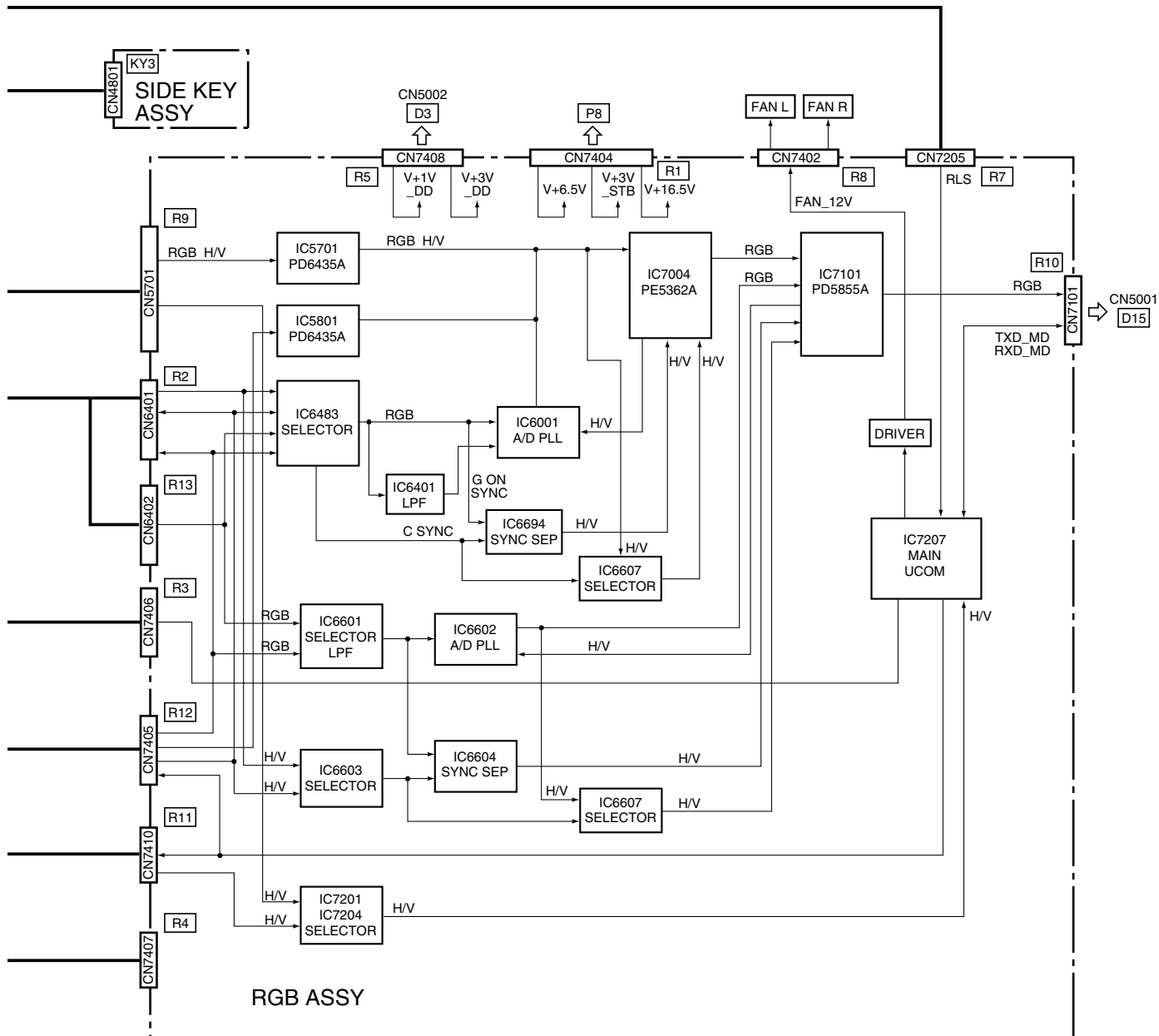
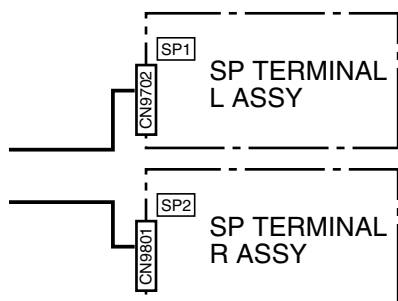
3.1.1 OVERALL BLOCK DIAGRAM (1/2)





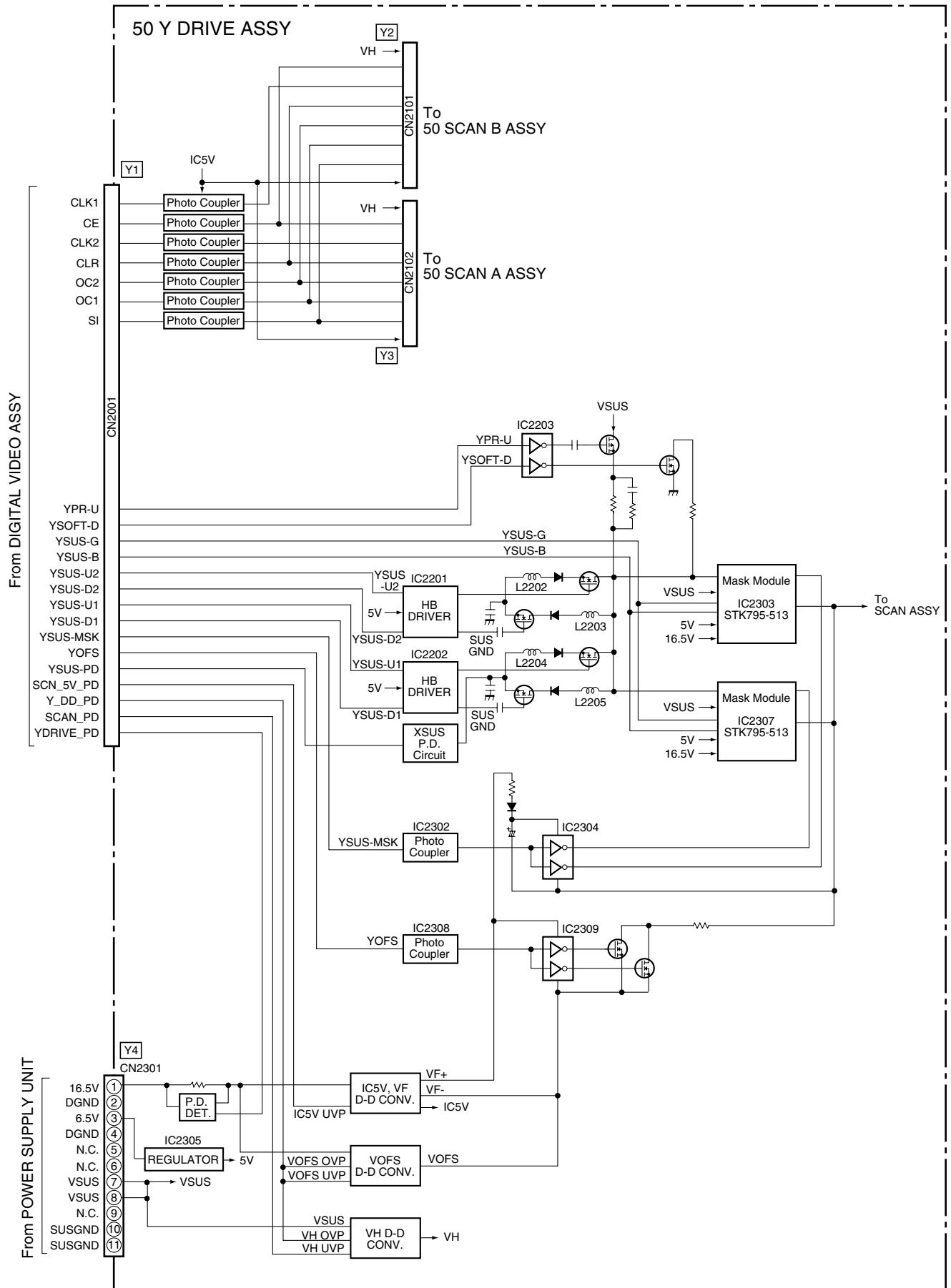
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3.1.4 50Y DRIVE ASSY



3.1.5 50 X DRIVE ASSY

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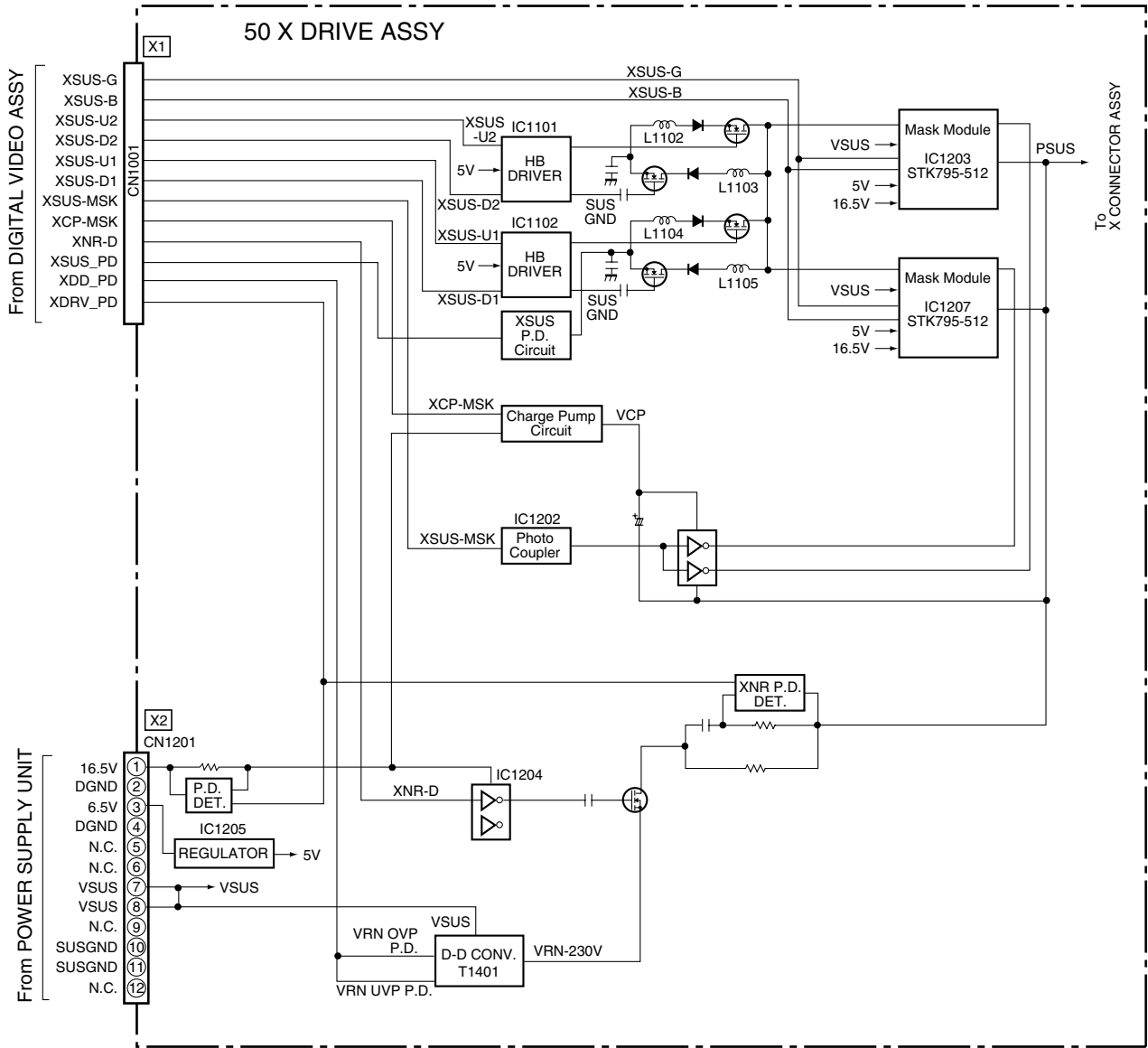
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3.1.7 AV I/O ASSY

A

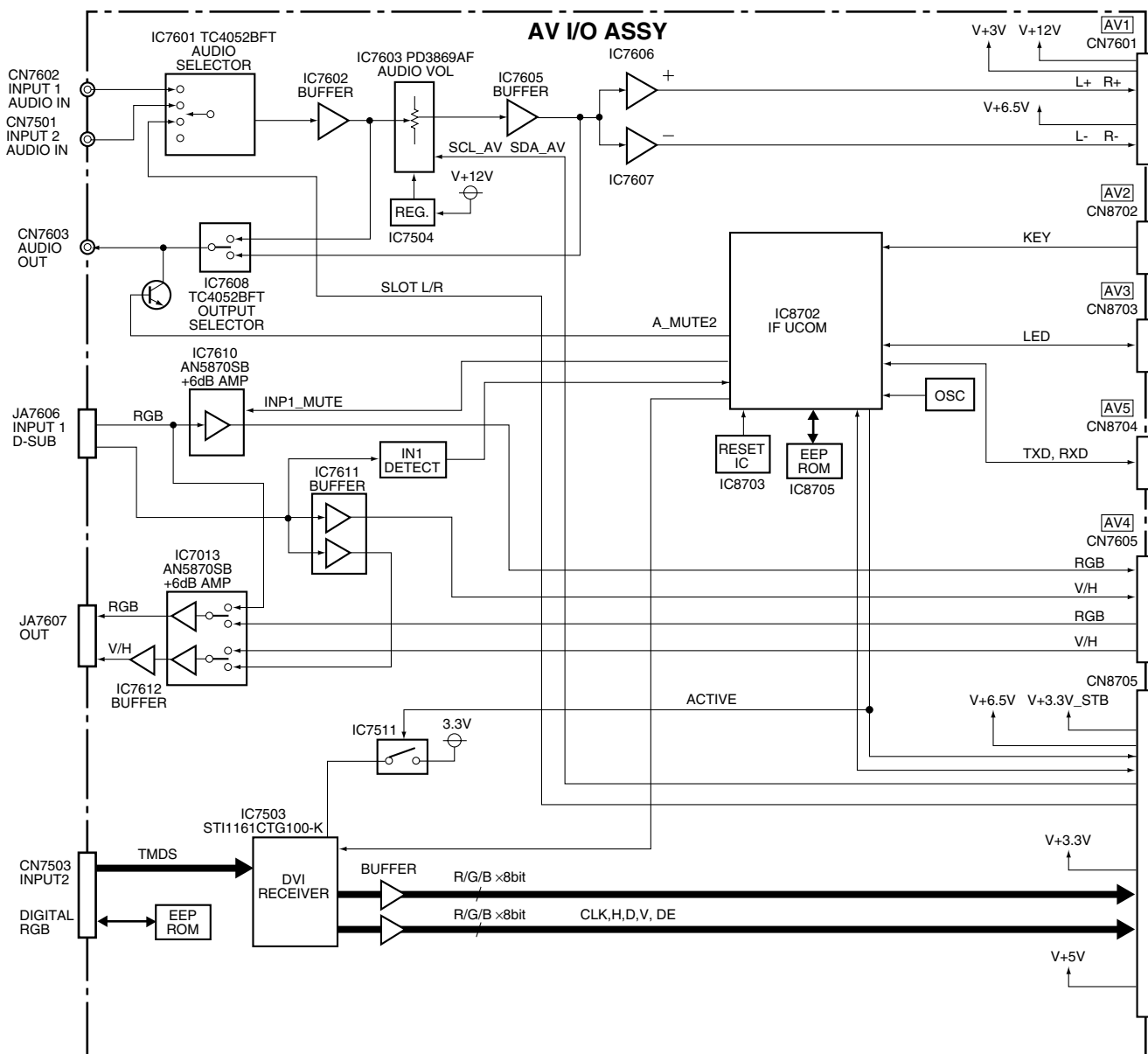
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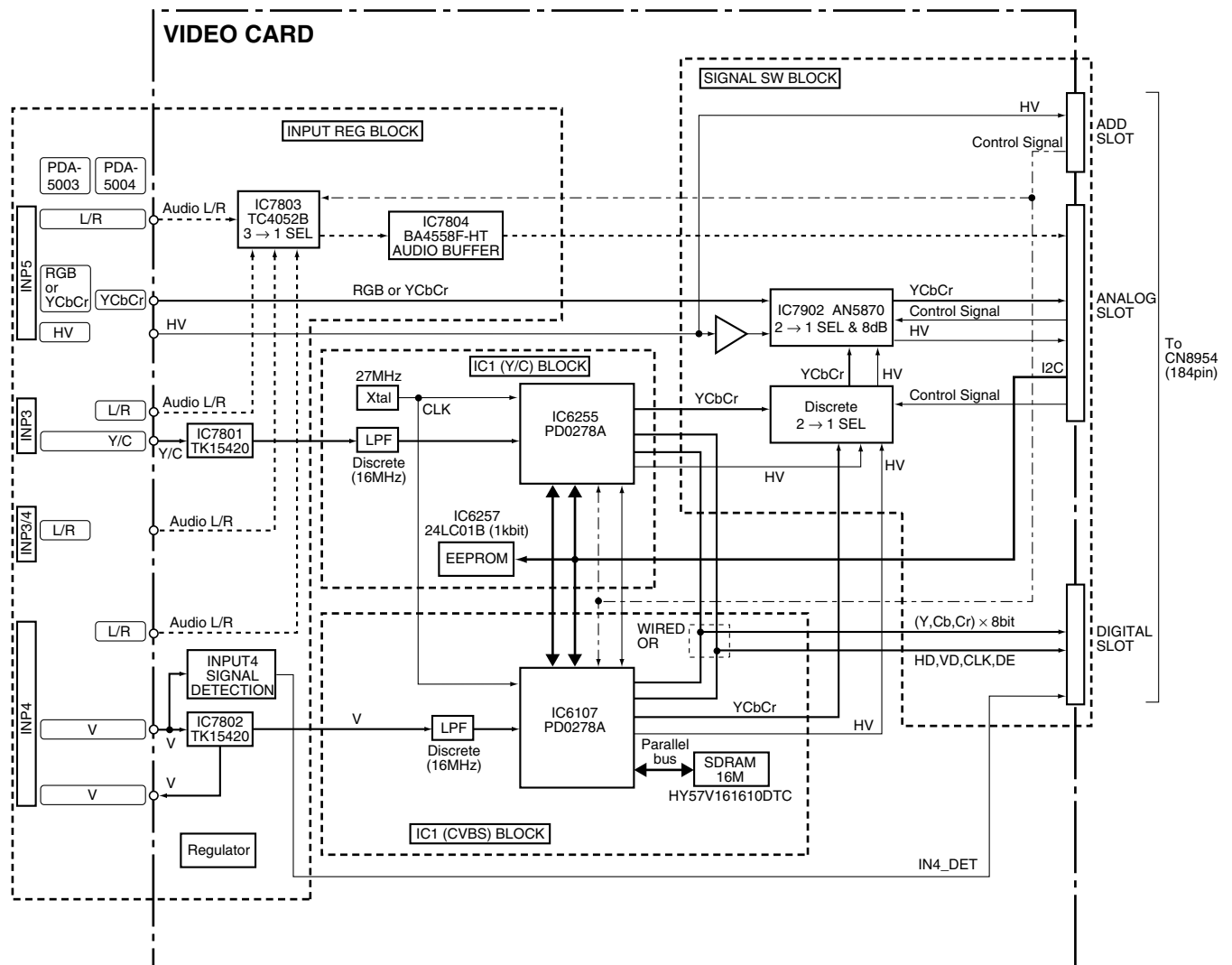
8



△



3.1.10 VIDEO CARD



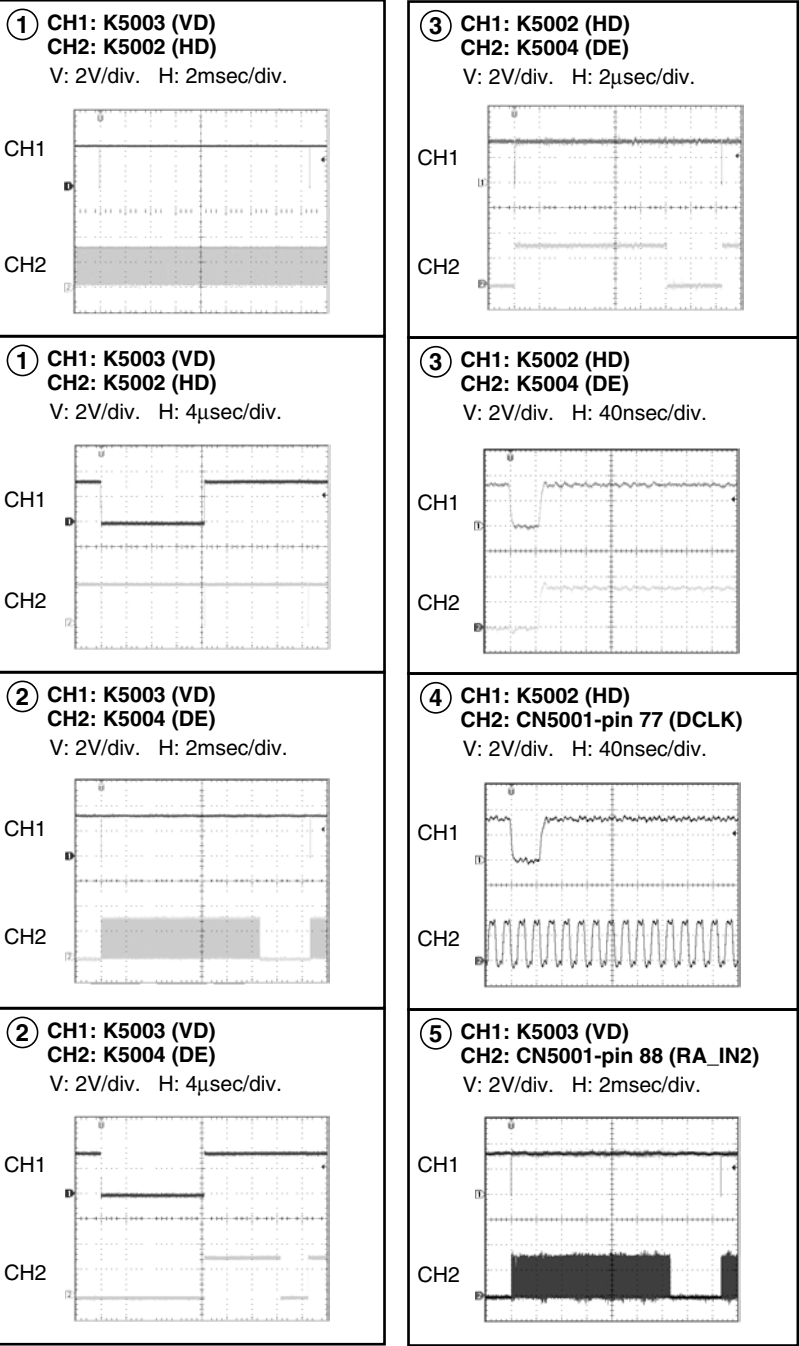
1 2 3 4

3.2 WAVEFORMS

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DIGITAL VIDEO ASSY (4/6)

• DIGITAL I/F BLOCK



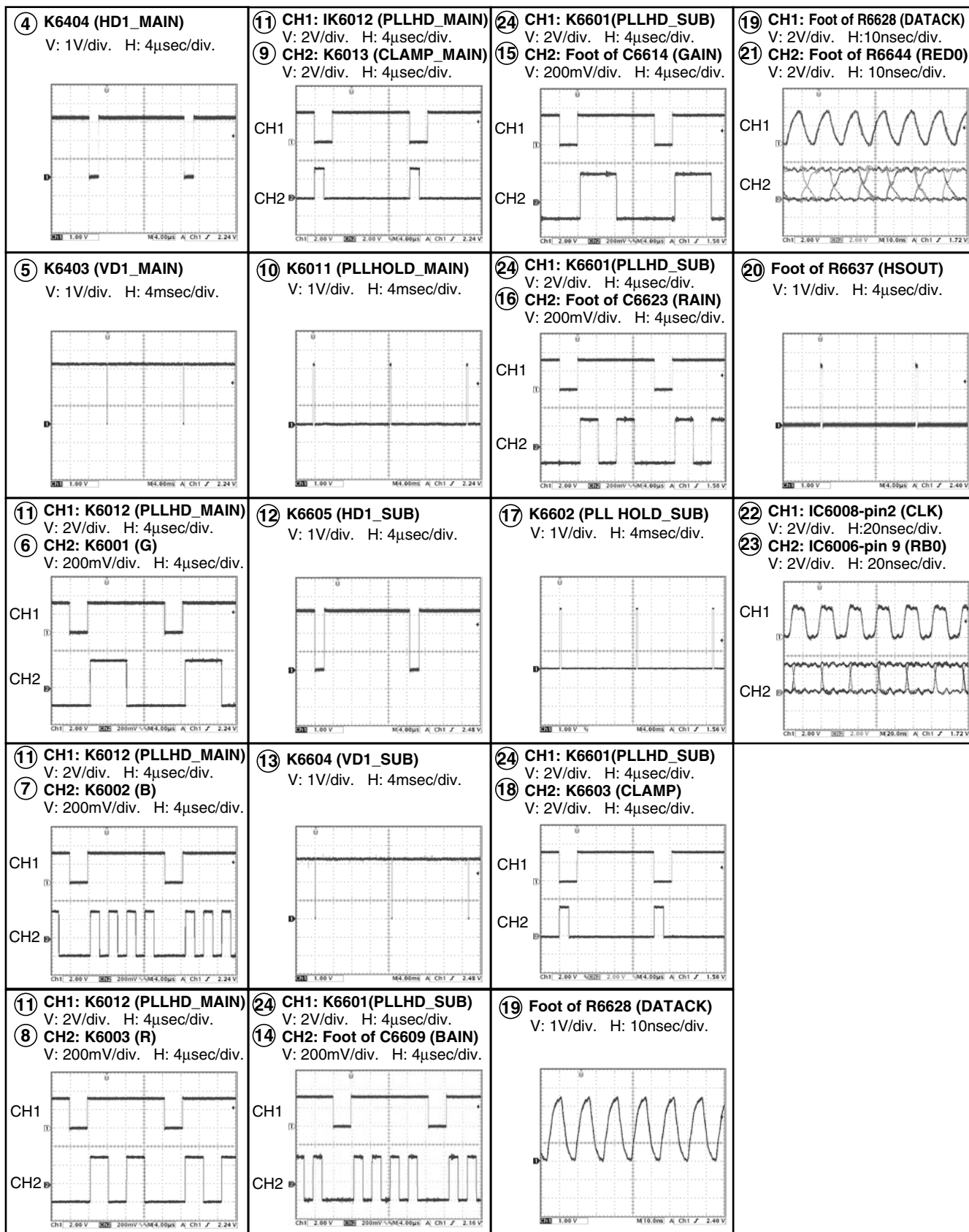
RGB ASSY (2/10, 3/10, 4/10)

MAUN AD BLOCK, MAIN LPF BLOCK, SUS LPF&AD BLOCK

Input: INPUT 1

Signal: RGB, XGA 60 Hz, Color-bar

(12) to (21), (24) : With two screens, a SUB screen chooses INPUT1 and observes it.

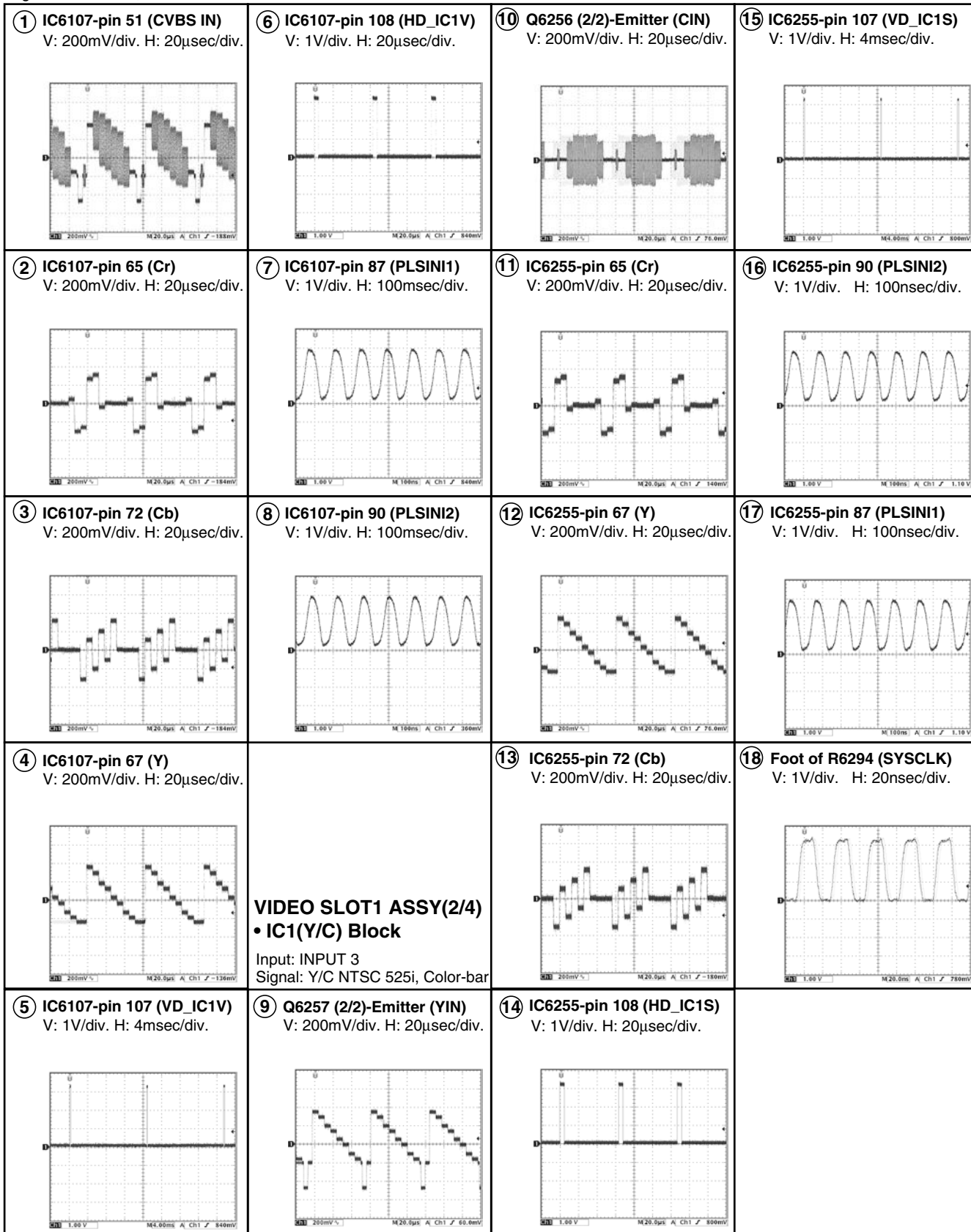


VIDEO SLOT1 ASSY (1/4), VIDEO SLOT2 ASSY (1/4)

• IC1(CVBS) BLOCK

Input: INPUT 4

Signal: NTSC 525i, Color-bar



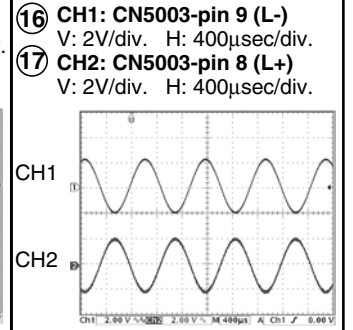
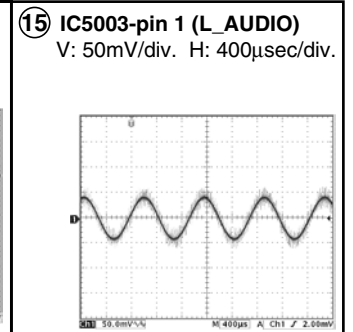
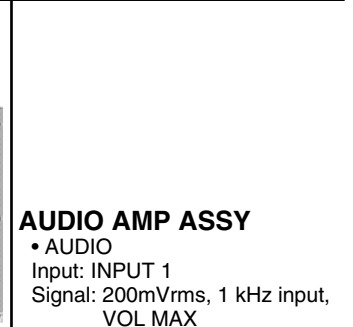
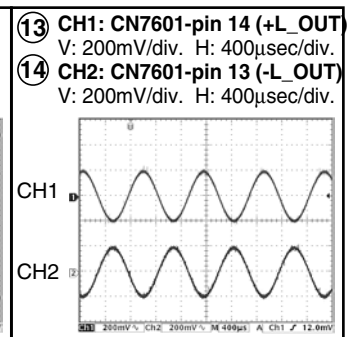
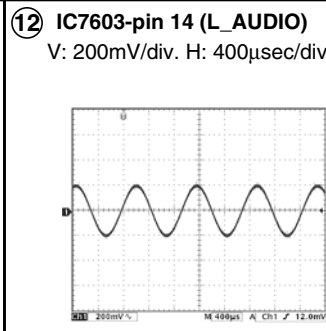
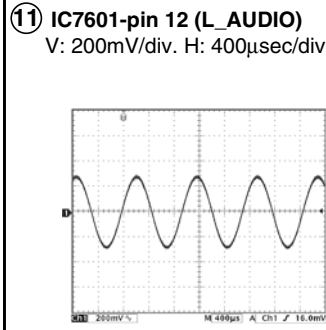
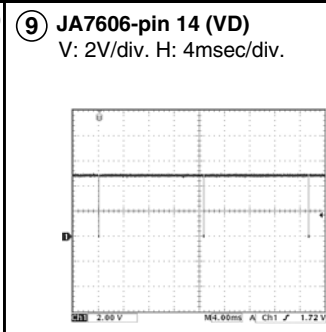
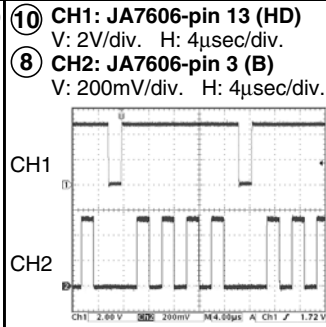
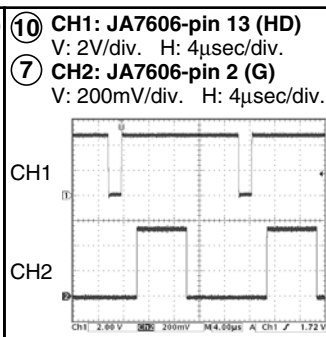
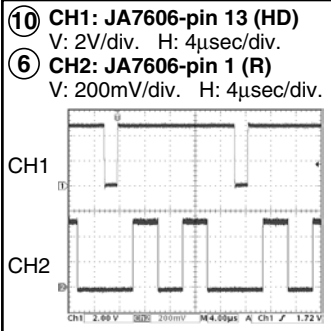
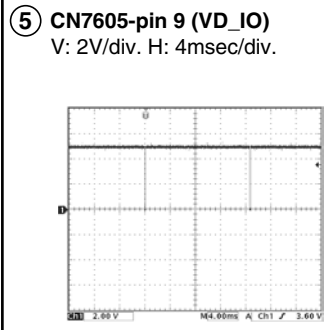
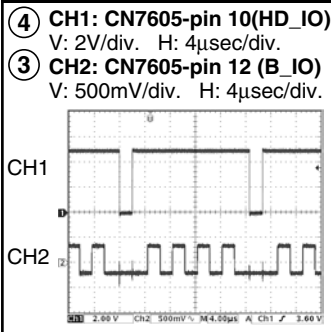
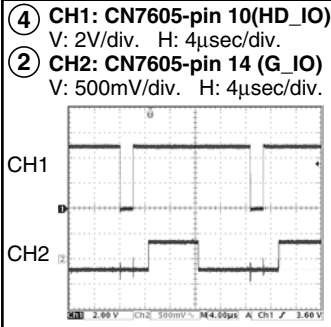
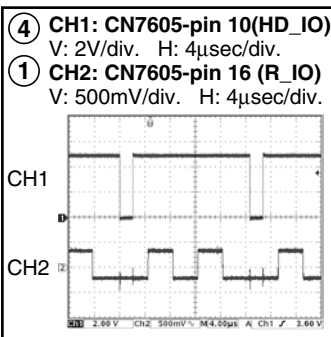
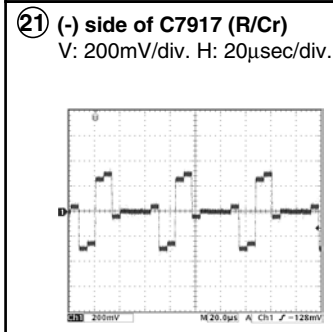
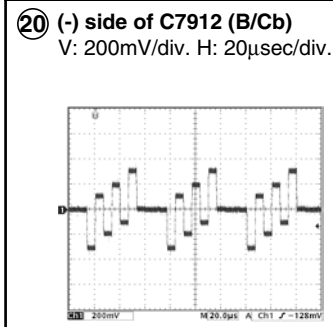
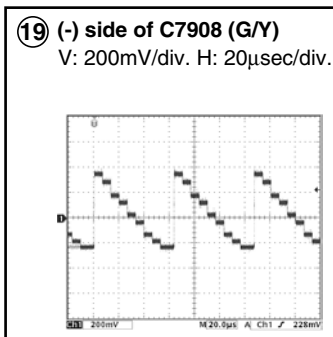
VIDEO SLOT1 ASSY (4/4)
VIDEO SLOT2 ASSY (4/4)
• SIGNAL SW BLOCK

AV I/O ASSY (1/3)

• VIDEO
 Input: INPUT 1
 Signal: RGB, XGA 60 Hz, Color-bar

• AV/IO BLOCK

• AUDIO
 Input: INPUT 1
 Signal: 200mVrms, 1 kHz input, VOL MAX

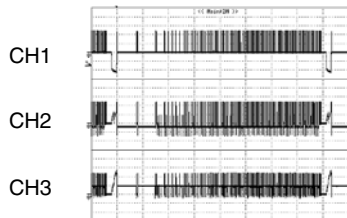


50 X DRIVE ASSY, 50 Y DRIVE ASSY and 50 SCAN A ASSY

• 50 X SUS BLOCK, 50 Y LOGIC BLOCK, 50 Y SUS BLOCK

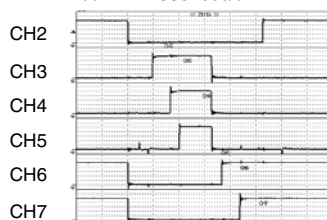
① Drive Output Waveform (1 field,color-bar)

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 SCAN A ASSY)
V: 100V/div. H: 2msec/div.



⑤ Control Signal (Sustain Waveform Gen.)

CH2: K2016 (YSUS-G) - K2010 (DGND)
CH3: K2025 (YSUS-U1) - K2010 (DGND)
CH4: K2022 (YSUS-U2) - K2010 (DGND)
CH5: K2026 (YSUS-B) - K2010 (DGND)
CH6: K2024 (YSUS-D2) - K2010 (DGND)
CH7: K2027 (YSUS-D1) - K2010 (DGND)
(50 Y DRIVE ASSY)
V: 1V/div. H: 500nsec/div.



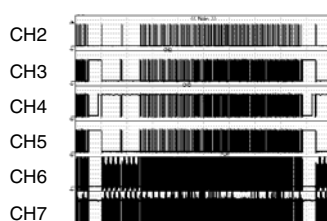
② Reset Pulse

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 SCAN A ASSY)
V: 100V/div. H: 100μsec/div.



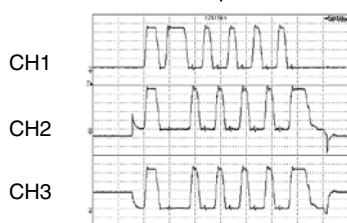
⑥ Scan Control Signal (1 field, color-bar)

CH2: K2006 (SI) - K2029 (DGND)
CH3: K2009 (OC1) - K2029 (DGND)
CH4: K2004 (OC2) - K2029 (DGND)
CH5: K2007 (CLR) - K2029 (DGND)
CH6: K2003 (CLK2) - K2029 (DGND)
CH7: K2008 (LE) - K2029 (DGND)
(50 Y DRIVE ASSY)
V: 1V/div. H: 2msec/div.



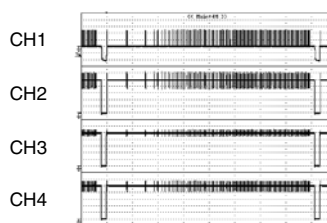
③ Sustain Pulse (1 sub-sub-field)

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 SCAN A ASSY)
V: 50V/div. H: 5μsec/div.



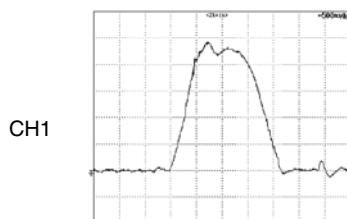
⑦ X Drive Pulse Control Signal (color-bar)

CH1: R1226 (XPSUS) - K2301 (SUSGND)
V: 100V/div. H: 2msec/div.
CH2: K1016 (XCP-MSK) - K1020 (DGND)
CH3: K1015 (XSUS-MSK) - K1020 (DGND)
CH4: K1014 (XNR-D) - K1020 (DGND)
V: 1V/div. H: 2msec/div.
(50 X DRIVE ASSY)



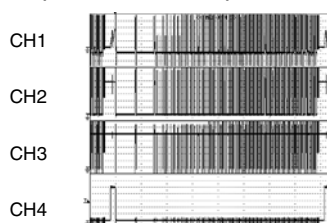
④ Sustain Waveform

CH1: R2348 (YPSUS) - K2301 (SUSGND)
(50 Y DRIVE ASSY)
V: 50V/div. H: 500nsec/div.



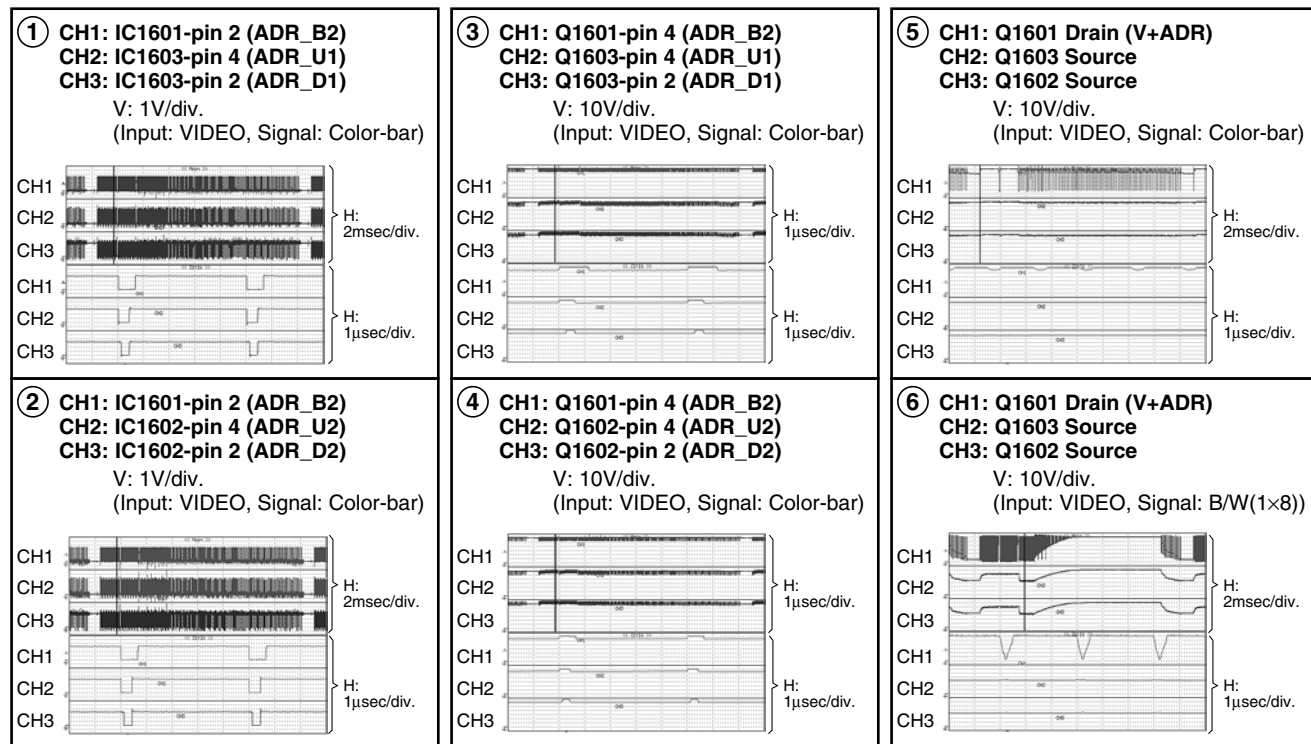
⑧ Y Drive Pulse Control Signal (color-bar)

CH1: R2348 (YPSUS) - K2301 (SUSGND)
V: 50V/div. H: 2msec/div.
CH2: K2015 (YSUS-MSK) - K2010 (DGND)
CH3: K2017 (YSOFT-D) - K2010 (DGND)
CH4: K2023 (YPR-U) - K2010 (DGND)
V: 1V/div. H: 2msec/div.
(50 Y DRIVE ASSY)



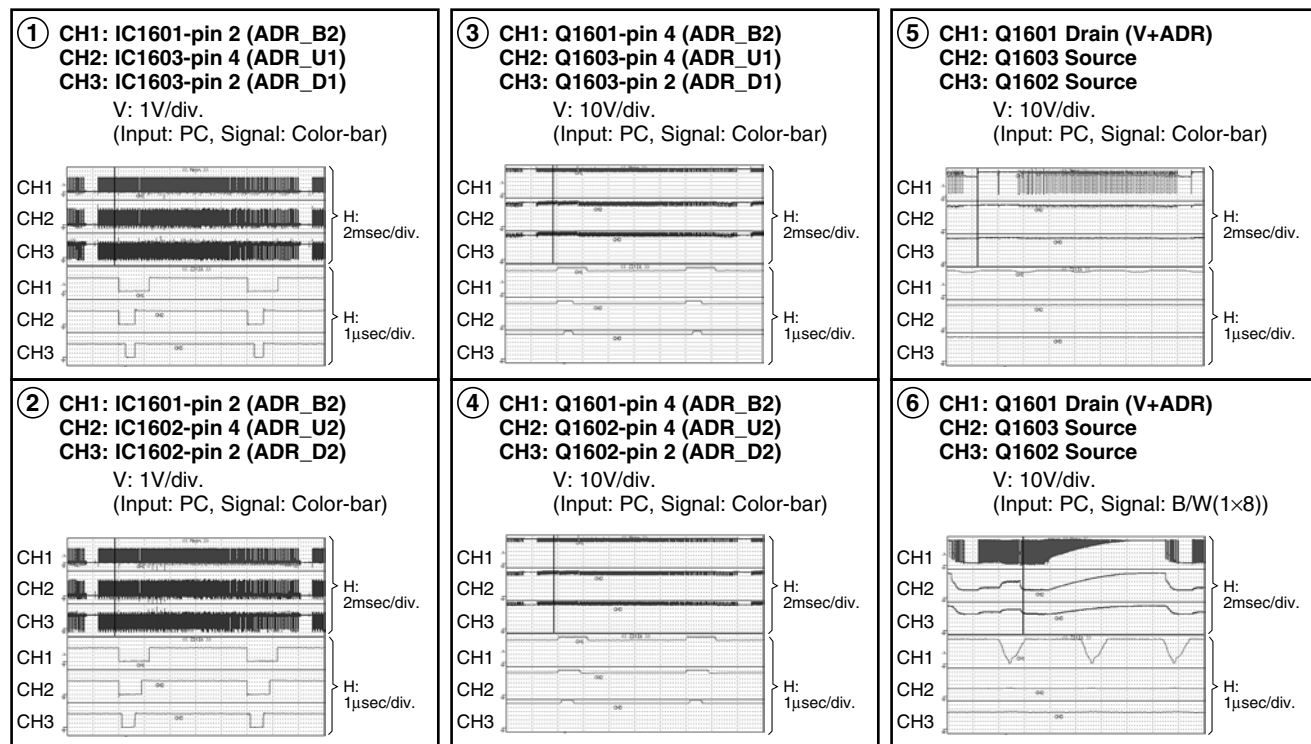
50 ADDRESS ASSY

• ADR RESONANCE BLOCK (VIDEO)



50 ADDRESS ASSY

• ADR RESONANCE BLOCK (PC)

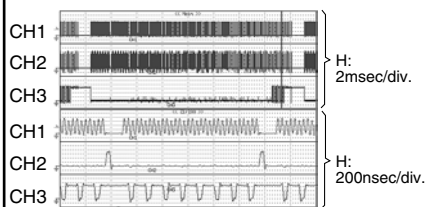


50 ADDRESS ASSY

• ADR LOGIC BLOCK

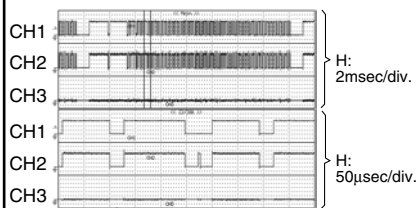
A

① CH1: IC1553-pin 18 (CLK input)
CH2: IC1553-pin 16 (LE input)
CH3: IC1553-pin 9 (DATA input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



B

② CH1: IC1553-pin 23 (HBLK input)
CH2: IC1553-pin 19 (LBLK input)
CH3: IC1553-pin 25 (HZ input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



C

D

E

F

3.3 VOLTAGES

• Voltages

CN5601 (D1)

No.	Signal Name	I/O	Signal Description	Voltages at NTSC Signal Input
1	+12V	I	+12V power input	+12VDC
2	+12V	I	+12V power input	+12VDC
3	GND_D	–	GND	
4	GND_D	–	GND	
5	PD	O	Power down signal	0VDC
6	VSUS_ADJ	O	VSUS adjustment signal	
7	PS_PD	I	Power-down detecting signal of POWER SUPPLY block	0VDC
8	RELAY	O	Relay control signal	+3.3VDC
9	DRF	O	Drive control signal	0VDC
10	AC_DET	I	Primary side power (AC) state output at panel side	+3.0VDC
11	PD_TRIGGER	I	Power down trigger	+3.3VDC

CN5602 (D2)

No.	Signal Name	I/O	Signal Description	Voltages at NTSC Signal Input
1	VADR	I	Address drive power (+61V) input	+61VDC
2	VADR	I	Address drive power (+61V) input	+61VDC
3	N.C		Not connected	
4	GND_ADR	–	GND	
5	GND_ADR	–	GND	
6	+6.5V	I	+6.5V power input	+6.8VDC
7	GND_D	–	GND	

RGB ASSY

POWER SUPPLY ASSY

RGB ASSY

VIDEO SLOT I/F ASSY

R1 (CN7404)		Voltage (V)	P8	
No.	Name		Name	No.
1	V+16.5V	16.7	V+16.5V	1
2	GND	0	GND	2
3	V+12V	12.9	V+12V	3
4	V+12V	12.9	V+12V	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+6.5V	6.8	V+6.5V	7
8	V+6.5V	6.8	V+6.5V	8
9	GND	0	GND	9
10	GND	0	GND	10
11	V+3V_STB	3.3	V+3V_STB	11
12	GND	0	GND	12
13	AC_DET	3.3	AC_DET	13

R4 (CN7407)		Voltage (V)	VS1 (CN8951)	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	V+13V	13.6	V+13V	3
4	V+13V	13.6	V+13V	4
5	V+12V	12.9	V+12V	5
6	V+12V	12.9	V+12V	6
7	GND	0	GND	7
8	V+3V_STB	3.3	V+3V_STB	8
9	GND	0	GND	9
10	V+3V_DD	3.3	V+3V_DD	10
11	V+3V_DD	3.3	V+3V_DD	11
12	GND	0	GND	12

RGB ASSY

AV I/O ASSY

RGB ASSY

DIGITAL VIDEO ASSY

R2 (CN6401)		Voltage (V)	AV4 (CN8705)	
No.	Name		Name	No.
1	VD_SLOT	0	VD_SLOT	1
2	HD_SLOT	0	HD_SLOT	2
3	GNDD	0	GNDD	3
4	B_SLOT	0	B_SLOT	4
5	GNDD	0	GNDD	5
6	G_SLOT	0	G_SLOT	6
7	GNDD	0	GNDD	7
8	R_SLOT	0	R_SLOT	8
9	VD_IO	5	VD_IO	9
10	HD_IO	4.5	HD_IO	10
R13 (CN6402)				
1	GNDD	0	GNDD	11
2	B_IO	0	B_IO	12
3	GNDD	0	GNDD	13
4	G_IO	0	G_IO	14
5	GNDD	0	GNDD	15
6	R_IO	0	R_IO	16

R5 (CN7408)		Voltage (V)	D3 (CN5002)	
No.	Name		Name	No.
1	V+1V_DD	1.4	V+1V_DD	1
2	V+1V_DD	1.4	V+1V_DD	2
3	V+1V_DD	1.4	V+1V_DD	3
4	GND	0	GND	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+3V_DD	3.3	V+3V_DD	7
8	V+3V_DD	3.3	V+3V_DD	8
9	GND	0	GND	9
10	GND	0	GND	10
11	NC			
12	NC			

RGB ASSY

COMM SLOT I/F ASSY

RGB ASSY

LED OPT ASSY (OPT)

R3 (CN7406)		Voltage (V)	CS2 (CN8902)	
No.	Name		Name	No.
1	V+5V_STB	5.1	V+5V_STB	1
2	GND	0	GND	2
3	V+3V_STB	3.3	V+3V_STB	3
4	CYOB11	3.3	CYOB11	4
5	CYOB12	0	CYOB12	5
6	CYOB13	0	CYOB13	6
7	GND	0	GND	7
8	SR_OUT	4.9	SR_OUT	8
9	SLOT_ST_COM	3.3	SLOT_ST_COM	9
10	V+6V	6.8	V+6V	10
11	NC	0	NC	11

R7 (CN7205)		Voltage (V)	LO2 (CN9051)	
No.	Name		Name	No.
1	3.3V	3.3	3.3V	1
2	RLS	0-3.3	RLS	2
3	GND	0	GND	3
4	GND	0	GND	4

RGB ASSY

FAN (L), (R)

R8 (CN7402)		Voltage (V)	FAN (L)	
No.	Name		Name	No.
1	FAN_12V	0	FAN_12V	1
2	FAN_NG	3.2	FAN_NG	2
3	GND	0	GND	3
			FAN (R)	
4	FAN_12V	0	FAN_12V	1
5	FAN_NG	3.2	FAN_NG	2
6	GND	0	GND	3
7	NC			

RGB ASSY

R9 (CN5701)				
No.	Name			
AV I/O IF ASSY		AV I/O ASSY		
CN2102, AV6 (CN2101)		Voltage (V)	CN8705	
No.	Name		Name	No.
1	N.C.	0	N.C.	101
2	N.C.	0	N.C.	102
3	A_R_SLOT	0	A_R_SLOT	103
4	GND	0	GND	104
5	A_L_SLOT	0	A_L_SLOT	105
6	GND	0	GND	106
7	V+12V	12.9	V+12V	107
8	GND	0	GND	108
9	1N1_HD	4.4	1N1_HD	109
10	1N1_VD	4.8	1N1_VD	110
11	WE_ROM_B	0	WE_ROM_B	111
12	KEY	3.3	KEY	112
13	IO_YOBI2	0	IO_YOBI2	113
14	SR_OUT	5	SR_OUT	114
15	RXD_IF	3.3	RXD_IF	115
16	CLK_IF	3.3	CLK_IF	116
17	RXD_WR	3.3	RXD_WR	117
18	REQ_IF	0	REQ_IF	118
19	RST_IF	0	RST_IF	119
20	IF_CE	3.2	IF_CE	120
21	HOT_P1	0	HOT_P1	121
22	HDMI2_SDA	0	HDMI2_SDA	122
23	HDMI_INT1	3.2	HDMI_INT1	123
24	SCL_AV	3.3	SCL_AV	124
25	HDMI_AUDIO_CLK	0	HDMI_AUDIO_CLK	125
26	D_AUDIO_SEL	0	D_AUDIO_SEL	126
27	CEC2	0	CEC2	127
28	GND	0	GND	128
29	HD_DVI	0	HD_DVI	129
30	DE_DVI	0	DE_DVI	130
31	GND	0	GND	131
32	RB_DVI7	0/3.3	RB_DVI7	132
33	RB_DVI6	0/3.3	RB_DVI6	133
34	RB_DVI4	0/3.3	RB_DVI4	134
35	RB_DVI2	0/3.3	RB_DVI2	135
36	RB_DVI0	0/3.3	RB_DVI0	136
37	GB_DVI6	0/3.3	GB_DVI6	137
38	GB_DVI4	0/3.3	GB_DVI4	138
39	GB_DVI2	0/3.3	GB_DVI2	139
40	GB_DVI0	0/3.3	GB_DVI0	140
41	BB_DVI6	0/3.3	BB_DVI6	141
42	BB_DVI4	0/3.3	BB_DVI4	142
43	BB_DVI2	0/3.3	BB_DVI2	143
44	BB_DVI0	0/3.3	BB_DVI0	144
45	RA_DVI7	0/3.3	RA_DVI7	145
46	RA_DVI5	0/3.3	RA_DVI5	146
47	RA_DVI3	0/3.3	RA_DVI3	147
48	RA_DVI1	0/3.3	RA_DVI1	148
49	GND	0	GND	149
52	GA_DVI7	0/3.3	GA_DVI7	152
53	GA_DVI5	0/3.3	GA_DVI5	153
54	GA_DVI3	0/3.3	GA_DVI3	154
55	GA_DVI1	0/3.3	GA_DVI1	155
56	BA_DVI7	0/3.3	BA_DVI7	156

RGB ASSY

R9 (CN5701)				
No.	Name			
AV I/O IF ASSY		AV I/O ASSY		
CN2102, AV6 (CN2101)		Voltage (V)	CN8705	
No.	Name		Name	No.
57	BA_DVI5	0/3.3	BA_DVI5	157
58	BA_DVI3	0/3.3	BA_DVI3	158
59	GND	0	GND	159
60	V+5V_A2	5	V+5V_A2	160
61	N.C.	0	N.C.	161
62	N.C.	0	N.C.	162
101	N.C.	0	N.C.	1
102	N.C.	0	N.C.	2
103	A_MUTE	0	A_MUTE	3
104	TEMP3	0A ^{3.3}	TEMP3	4
105	V+6V	6.8	V+6V	5
106	GND	0	GND	6
107	V+3V_A1	3.3	V+3V_A1	7
108	GND	0	GND	8
109	V+3V_UCOM	3.3	V+3V_UCOM	9
110	GND	0	GND	10
111	V+3VSTB	3.3	V+3VSTB	11
112	IO_YOBI1	0	IO_YOBI1	12
113	PN2	0	PN2	13
114	ACTIVE	3.2	ACTIVE	14
115	TXD_IF	3.3	TXD_IF	15
116	TXD_WR	3.3	TXD_WR	16
117	AC_DET	3	AC_DET	17
118	IF_BUSY	0	IF_BUSY	18
119	RESET	3.3	RESET	19
120	HDMI_AUDIO_CE	0	HDMI_AUDIO_CE	20
121	HOT_P2	0	HOT_P2	21
122	HDMI2_SCL	0	HDMI2_SCL	22
123	SDA_AV	3.2	SDA_AV	23
124	HDMI_INT2	3.2	HDMI_INT2	24
125	HDMI_AUDIO_TXD	0	HDMI_AUDIO_TXD	25
126	CEC1	2	CEC1	26
127	RESETX1	3.3	RESETX1	27
128	VD_DVI	0	VD_DVI	28
129	GND	0	GND	29
130	CLK_DVI	0	CLK_DVI	30
131	GND	0	GND	31
132	GND	0	GND	32
133	RB_DVI5	0/3.3	RB_DVI5	33
134	RB_DVI3	0/3.3	RB_DVI3	34
135	RB_DVI1	0/3.3	RB_DVI1	35
136	GB_DVI7	0/3.3	GB_DVI7	36
137	GB_DVI5	0/3.3	GB_DVI5	37
138	GB_DVI3	0/3.3	GB_DVI3	38
139	GB_DVI1	0/3.3	GB_DVI1	39
140	GND	0	GND	40
141	BB_DVI6	0/3.3	BB_DVI6	41
142	BB_DVI4	0/3.3	BB_DVI4	42
143	BB_DVI2	0/3.3	BB_DVI2	43
144	BB_DVI0	0/3.3	BB_DVI0	44
145	RA_DVI6	0/3.3	RA_DVI6	45
146	RA_DVI4	0/3.3	RA_DVI4	46
147	RA_DVI2	0/3.3	RA_DVI2	47
148	RA_DVI0	0/3.3	RA_DVI0	48

RGB ASSY

R9 (CN5701)			
No.	Name		
AV I/O IF ASSY		AV I/O ASSY	
CN2102, AV6 (CN2101)		Voltage (V)	CN8705
No.	Name		No.
149	GND	0	49
152	GA_DVI6	0/3.3	52
153	GA_DVI4	0/3.3	53
154	GA_DVI2	0/3.3	54
155	GA_DVI0	0/3.3	55
156	BA_DVI6	0/3.3	56
157	BA_DVI4	0/3.3	57
158	BA_DVI2	0/3.3	58
159	BA_DVI1	0/3.3	59
160	BA_DVI0	0/3.3	60
161	NC	0	61
162	NC	0	62

RGB ASSY

VIDEO SLOT I/F ASSY

R11 (CN7410)		Voltage (V)	VS3 (CN8955)	
No.	Name		Name	No.
38	GND	0	GND	38
39	GND	0	GND	39
40	DSUBV	5	DSUBV	40
41	GND	0	GND	41
42	GND	0	GND	42
43	IN5_VD	3.3	IN5_VD	43
44	GND	0	GND	44
45	GND	0	GND	45
46	HYOUJI_X	0	HYOUJI_X	46
47	VYOB14	0	VYOB14	47
48	VYOB15	0	VYOB15	48
49	VYOB16	0	VYOB16	49
50	WE_ROM_B	0	WE_ROM_B	50

RGB ASSY

VIDEO SLOT I/F ASSY

R11 (CN7410)		Voltage (V)	VS3 (CN8955)	
No.	Name		Name	No.
1	GND	0	GND	1
2	KEY	3.3	KEY	2
3	EMGREQ1_V	0	EMGREQ1_V	3
4	EMGREQ2_V	0	EMGREQ2_V	4
5	IC1V_OE	3.3	IC1V_OE	5
6	RESETX1	3.3	RESETX1	6
7	GND	0	GND	7
8	SD_SEL	3.3	SD_SEL	8
9	FNC2	0	FNC2	9
10	FNC3	0	FNC3	10
11	SOUND1	3.3	SOUND1	11
12	GND	0	GND	12
13	DSUBR	3.77	DSUBR	13
14	GND	0	GND	14
15	DSUBG	0	DSUBG	15
16	GND	0	GND	16
17	DSUBB	3.8	DSUBB	17
18	GND	0	GND	18
19	GND	0	GND	19
20	IN5_HD	0	IN5_HD	20
21	GND	0	GND	21
22	SOUSA_X	3.3	SOUSA_X	22
23	VYOB11	0	VYOB11	23
24	VYOB12	0	VYOB12	24
25	DSUBSW_DET	0	DSUBSW_DET	25
26	GND	0	GND	26
27	GND	0	GND	27
28	GND	0	GND	28
29	EMGREQ1_S	0	EMGREQ1_S	29
30	EMGREQ2_S	0	EMGREQ2_S	30
31	IC1S_OE	0	IC1S_OE	31
32	SLOT_ST3	0.4	SLOT_ST3	32
33	M_CHOICE	0	M_CHOICE	33
34	SOUND2	0	SOUND2	34
35	GND	0	GND	35
36	GND	0	GND	36
37	DSUBH	4.5	DSUBH	37

RGB ASSY

VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	G_SLOT	0	G_SLOT	3
4	GND	0	GND	4
5	B_SLOT	0	B_SLOT	5
6	GND	0	GND	6
7	R_SLOT	0	R_SLOT	7
8	GND	0	GND	8
9	HD_SLOT	0	HD_SLOT	9
10	GND	0	GND	10
11	VD_SLOT	0	VD_SLOT	11
12	GND	0	GND	12
13	AUDIO_L_SLOT	6	AUDIO_L_SLOT	13
14	GND	0	GND	14
15	AUDIO_R_SLOT	6	AUDIO_R_SLOT	15
16	GND	0	GND	16
17	SLOT_ST1	0	SLOT_ST1	17
18	S_DIN_SEL	0	S_DIN_SEL	18
19	FNC_1	0	FNC_1	19
20	FNC_0	5	FNC_0	20
21	NC	0	NC	21
22	NC	0	NC	22
23	VD_DET	0	VD_DET	23
24	GND	0	GND	24
25	HD_DET	0	HD_DET	25
26	GND	0	GND	26
27	VD_IC1	3.2	VD_IC1	27
28	GND	0	GND	28
29	HD_IC1	3	HD_IC1	29
30	GND	0	GND	30
31	GND	0	GND	31
32	RB0_IC1	0/3.3	RB0_IC1	32
33	RB1_IC1	0/3.3	RB1_IC1	33
34	RB2_IC1	0/3.3	RB2_IC1	34
35	RB3_IC1	0/3.3	RB3_IC1	35
36	RB4_IC1	0/3.3	RB4_IC1	36
37	RB5_IC1	0/3.3	RB5_IC1	37

RGB ASSY

VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
38	RB6_IC1	0/3.3	RB6_IC1	38
39	RB7_IC1	0/3.3	RB7_IC1	39
40	GND	0	GND	40
41	GND	0	GND	41
42	GB0_IC1	0/3.3	GB0_IC1	42
43	GB1_IC1	0/3.3	GB1_IC1	43
44	GB2_IC1	0/3.3	GB2_IC1	44
45	GB3_IC1	0/3.3	GB3_IC1	45
46	GB4_IC1	0/3.3	GB4_IC1	46
47	GB5_IC1	0/3.3	GB5_IC1	47
48	GB6_IC1	0/3.3	GB6_IC1	48
49	GB7_IC1	0/3.3	GB7_IC1	49
50	GND	0	GND	50
51	GND	0	GND	51
52	BB0_IC1	0/3.3	BB0_IC1	52
53	BB1_IC1	0/3.3	BB1_IC1	53
54	BB2_IC1	0/3.3	BB2_IC1	54
55	BB3_IC1	0/3.3	BB3_IC1	55
56	BB4_IC1	0/3.3	BB4_IC1	56
57	BB5_IC1	0/3.3	BB5_IC1	57
58	BB6_IC1	0/3.3	BB6_IC1	58
59	BB7_IC1	0/3.3	BB7_IC1	59
60	GND	0	GND	60
61	GND	0	GND	61
62	GND	0	GND	62
63	SCL_VS	3.1	SCL_VS	63
64	GND	0	GND	64
65	SDA_VS	3.1	SDA_VS	65
66	GND	0	GND	66
67	GND	0	GND	67
68	GND	0	GND	68
69	NC	0	NC	69
70	GND	0	GND	70
71	NC	0	NC	71
72	GND	0	GND	72
73	NC	0	NC	73
74	GND	0	GND	74
75	NC	0	NC	75
76	NC	0	NC	76
77	IN4_DET	0	IN4_DET	77
78	IN3_DET	0	IN3_DET	78
79	SLOT_ST2	3	SLOT_ST2	79
80	SR_VS	5.1	SR_VS	80
81	NC	0	NC	81
82	3G4G	3.3	3G4G	82
83	GND	0	GND	83
84	GND	0	GND	84
85	IN5_DET	0	IN5_DET	85
86	GND	0	GND	86
87	DE_IC1	2.5	DE_IC1	87
88	GND	0	GND	88
89	CK_IC1	1.5	CK_IC1	89
90	GND	0	GND	90
91	GND	0	GND	91
92	BA7_IC1	0/3.3	BA7_IC1	92
93	BA6_IC1	0/3.3	BA6_IC1	93
94	BA5_IC1	0/3.3	BA5_IC1	94

RGB ASSY

VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
95	BA4_IC1	0/3.3	BA4_IC1	95
96	BA3_IC1	0/3.3	BA3_IC1	96
97	BA2_IC1	0/3.3	BA2_IC1	97
98	BA1_IC1	0/3.3	BA1_IC1	98
99	BA0_IC1	0/3.3	BA0_IC1	99
100	GND	0	GND	100
101	GND	0	GND	101
102	GA7_IC1	0/3.3	GA7_IC1	102
103	GA6_IC1	0/3.3	GA6_IC1	103
104	GA5_IC1	0/3.3	GA5_IC1	104
105	GA4_IC1	0/3.3	GA4_IC1	105
106	GA3_IC1	0/3.3	GA3_IC1	106
107	GA2_IC1	0/3.3	GA2_IC1	107
108	GA1_IC1	0/3.3	GA1_IC1	108
109	GA0_IC1	0/3.3	GA0_IC1	109
110	GND	0	GND	110
111	GND	0	GND	111
112	RA7_IC1	0/3.3	RA7_IC1	112
113	RA6_IC1	0/3.3	RA6_IC1	113
114	RA5_IC1	0/3.3	RA5_IC1	114
115	RA4_IC1	0/3.3	RA4_IC1	115
116	RA3_IC1	0/3.3	RA3_IC1	116
117	RA2_IC1	0/3.3	RA2_IC1	117
118	RA1_IC1	0/3.3	RA1_IC1	118
119	RA0_IC1	0/3.3	RA0_IC1	119
120	GND	0	GND	120
121	GND	0	GND	121
122	GND	0	GND	122

AV I/O ASSY

AUDIO AMP ASSY

AV1 (CN7601)		Voltage (V)	AP2 (CN5001)	
No.	Name		Name	No.
1	A_NG	3.2	A_NG	15
2	TEMP3	0-3.3	TEMP3	14
3	A_MUTE	0	A_MUTE	13
4	ST_BY	2.5	ST_BY	12
5	GND	0	GND	11
6	V+6V	6.8	V+6V	10
7	V+3V	3.3	V+3V	9
8	V+12A	12	V+12A	8
9	GND	0	GND	7
10	-R_OUT	6	-R_OUT	6
11	+R_OUT	6	+R_OUT	5
12	GND	0	GND	4
13	-L_OUT	6	-L_OUT	3
14	+L_OUT	6	+L_OUT	2
15	GND	0	GND	1

AV I/O ASSY

KEY CONTROL ASSY

AV2 (CN8702)		Voltage (V)	KY1 (CN9001)	
No.	Name		Name	No.
1	GND	0	GND	1
2	KEY	3.3	KEY	2
3	V+3VSTB	3.3	V+3VSTB	3

AV I/O ASSY

LED OPT ASSY

AV3 (CN8703)		Voltage (V)	KY1 (CN9651)	
No.	Name		Name	No.
1	V+3STB	3.3	V+3STB	1
2	LED_G	0	LED_G	2
3	LED_R	3.3	LED_R	3
4	GND	0	GND	4
5	AC_DET	3	AC_DET	5

COMM SLOT I/F ASSY

IR ASSY

CS4 (CN8901)		Voltage (V)	RE1 (CN4901)	
No.	Name		Name	No.
1	V+3STB	3.3	V+3STB	1
2	GND	0	GND	2
3	SR	0	SR	3
4	GND	0	GND	4

AV I/O ASSY

COMM SLOT I/F ASSY

AV5 (CN8704)		Voltage (V)	KY1 (CN8905)	
No.	Name		Name	No.
1	STL_LINK	3.3	STL_LINK	1
2	CB_MUTE	3.3	CB_MUTE	2
3	KEY	3.3	KEY	3
4	RXD	3.3	RXD	4
5	TXD	3.3	TXD	5
6	GND	0	GND	6

COMM SLOT I/F ASSY

COMM SLOT ASSY

CS5 (CN8904)		Voltage (V)	CN9454	
No.	Name		Name	No.
1	NC	0	NC	1
2	IRSW	0	IRSW	2
3	IR_COMM_OUT	5.1	IR_COMM_OUT	3
4	IR_COMM_IN	5.1	IR_COMM_IN	4
5	GND	0	GND	5
6	GND	0	GND	6
7	GND	0	GND	7
8	CYOB13	0	CYOB13	8
9	CYOB12	0	CYOB12	9
10	CSL_ST2	3.3	CSL_ST2	10
11	CSL_ST1	3.3	CSL_ST1	11
12				12
13				13
14	GND	0	GND	14
15	GND	0	GND	15
16	FIRST_RXD	3.3	FIRST_RXD	16
17	GET_UART	3.3	GET_UART	17
18	INT_EXT	3.3	INT_EXT	18
19	RXD_CARD	0	RXD_CARD	19
20	TXD_CARD	0	TXD_CARD	20
21	GPC5	0	GPC5	21
22	GPC4	0	GPC4	22
23	GPC3	0	GPC3	23
24	GPC2	0	GPC2	24
25	GPC1	0	GPC1	25
101	NC	0	NC	101
102	GND	0	GND	102
103	GND	0	GND	103
104	GND	0	GND	104
105	TXD_PDP	3.3	TXD_PDP	105
106	RXD_PDP	3.3	RXD_PDP	106
107	KEY_COMM_IN	3.3	KEY_COMM_IN	107
108	CB_MUTE	3.3	CB_MUTE	108
109	STL_LINK	3.3	STL_LINK	109
110	GND	0	GND	110
111	GND	0	GND	111
114	V+6.5V	6.8	V+6.5V	114
115	V+6.5V	6.8	V+6.5V	115
116	GND	0	GND	116
117	GND	0	GND	117
118	V+3VSTB	3.3	V+3VSTB	118
119	V+3VSTB	3.3	V+3VSTB	119
120	NC	0	NC	120
121	NC	0	NC	121
122	NC	0	NC	122
123	NC	0	NC	123
124	NC	0	NC	124
125	NC	0	NC	125

AUDIO AMP ASSY

POWER SUPPLY ASSY

AP1 (CN5002)		Voltage (V)	P6	
No.	Name		Name	No.
1	V+16R5	16.7	V+16R5	1
2	V+16R5	16.7	V+16R5	2
3	GNDP	0	GNDP	3
4	GNDP	0	GNDP	4
5	GNDP	0	GNDP	5
6	GNDP	0	GNDP	6

AUDIO AMP ASSY

SP TERMINAL R ASSY

AP3 (CN5003)		Voltage (V)	SP2 (CN9801)	
No.	Name		Name	No.
1	GND	0	GND	1
2	R+	5.3	R+	2
3	R-	5.2	R-	3
SP TERMINAL L ASSY				
SP1 (CN9702)				
4	STBGND	0	STBGND	1
5	TEMP3	0-3.3	TEMP3	2
6	V+3VDD	3.3	V+3VDD	3
7	GND	0	GND	4
8	L+	5.3	L+	5
9	L-	5.2	L-	6

KEY CONTROL ASSY

SIDE KEY ASSY

KY2 (CN9002)		Voltage (V)	KY3 (CN4801)	
No.	Name		Name	No.
1	D7	0/3.3	D7	1
2	D6	0/3.3	D6	2
3	D5	0/3.3	D5	3
4	G0	0/3.3	G0	4
5	G1	0/3.3	G1	5
6	G2	0/3.3	G2	6
7	G3	0/3.3	G3	7
8	GND	0	GND	8

COMM SLOT I/F ASSY

CS3 (CN8903)		Voltage (V)	VS2 (CN8952)	
No.	Name		Name	No.
1	GND	0	GND	1
2	FIRST_RXD	3.3	FIRST_RXD	2
3	GET_UART	3.3	GET_UART	3
4	INT_EXT	3.3	INT_EXT	4
5	RXD_GU	0	RXD_GU	5
6	TXD_GU	0	TXD_GU	6
7	GPC5	0	GPC5	7
8	GPC4	0	GPC4	8
9	GPC3	0	GPC3	9
10	GPC2	0	GPC2	10
11	GPC1	0	GPC1	11

VIDEO SLOT I/F ASSY

VIDEO SLOT I/F ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	G_SLOT	0	G_SLOT	3
4	GND	0	GND	4
5	B_SLOT	0	B_SLOT	5
6	GND	0	GND	6
7	R_SLOT	0	R_SLOT	7
8	GND	0	GND	8
9	HD_SLOT	0	HD_SLOT	9
10	GND	0	GND	10
11	VD_SLOT	0	VD_SLOT	11
12	GND	0	GND	12
13	AUDIO_L_SLOT	6	AUDIO_L_SLOT	13
14	GND	0	GND	14
15	AUDIO_R_SLOT	6	AUDIO_R_SLOT	15
16	GND	0	GND	16
17	SLOT_ST1	0	SLOT_ST1	17
18	S_DIN_SEL	0	S_DIN_SEL	18
19	FNC_1	0	FNC_1	19
20	FNC_0	5	FNC_0	20
21	V+3.3V	3.2	V+3.3V	21
22	V+3.3V	3.2	V+3.3V	22
23	VD_DET	0	VD_DET	23
24	GND	0	GND	24
25	HD_DET	0	HD_DET	25
26	GND	0	GND	26
27	VD	3.2	VD	27
28	GND	0	GND	28
29	HD	3	HD	29
30	GND	0	GND	30
31	GND	0	GND	31
32	RB0_IC1	0/3.3	RB0_IC1	32
33	RB1_IC1	0/3.3	RB1_IC1	33
34	RB2_IC1	0/3.3	RB2_IC1	34
35	RB3_IC1	0/3.3	RB3_IC1	35
36	RB4_IC1	0/3.3	RB4_IC1	36
37	RB5_IC1	0/3.3	RB5_IC1	37
38	RB6_IC1	0/3.3	RB6_IC1	38
39	RB7_IC1	0/3.3	RB7_IC1	39
40	GND	0	GND	40
41	GND	0	GND	41
42	GB0_IC1	0/3.3	GB0_IC1	42

VIDEO SLOT 1 and 2 ASSY

VIDEO SLOT I/F ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
43	GB1_IC1	0/3.3	GB1_IC1	43
44	GB2_IC1	0/3.3	GB2_IC1	44
45	GB3_IC1	0/3.3	GB3_IC1	45
46	GB4_IC1	0/3.3	GB4_IC1	46
47	GB5_IC1	0/3.3	GB5_IC1	47
48	GB6_IC1	0/3.3	GB6_IC1	48
49	GB7_IC1	0/3.3	GB7_IC1	49
50		À		50
51		À		51
52	GND	0	GND	52
53	GND	0	GND	53
54	BB0_IC1	0/3.3	BB0_IC1	54
55	BB1_IC1	0/3.3	BB1_IC1	55
56	BB2_IC1	0/3.3	BB2_IC1	56
57	BB3_IC1	0/3.3	BB3_IC1	57
58	BB4_IC1	0/3.3	BB4_IC1	58
59	BB5_IC1	0/3.3	BB5_IC1	59
60	BB6_IC1	0/3.3	BB6_IC1	60
61	BB7_IC1	0/3.3	BB7_IC1	61
62	GND	0	GND	62
63				63
64				64
65	GND	0	GND	65
66	GND	0	GND	66
67	KEY	3.3	KEY	67
68	NC	0	NC	68
69	TXD_CARD	0	TXD_CARD	69
70	RXD_CARD	0	RXD_CARD	70
71	INT_EXT	3.3	INT_EXT	71
72	NC	0	NC	72
73	EMGREQ1_V	0	EMGREQ1_V	73
74	EMGREQ2_V	0	EMGREQ2_V	74
75	IC1V_OE	3.3	IC1V_OE	75
76	RESETX1	3.3	RESETX1	76
77	NC	0	NC	77
78	SD_SEL	3.3	SD_SEL	78
79	FNC2	0	FNC2	79
80	FNC3	0	FNC3	80
81	SOUND1	3.3	SOUND1	81
82	GND	0	GND	82
83	DSUBR	3.8	DSUBR	83
84	GND	0	GND	84
85	DSUBG	0	DSUBG	85
86	GND	0	GND	86
87	DSUBB	3.8	DSUBB	87
88	GND	0	GND	88
89	IN5_HD	0	IN5_HD	89
90	SOUA_X	3.3	SOUA_X	90
91	GPC1	0	GPC1	91
92	GPC2	0	GPC2	92
93	GPC5	0	GPC5	93
94	VYOB11	0	VYOB11	94
95	VYOB12	0	VYOB12	95
96	DSUBSW_DET	0	DSUBSW_DET	96
101	GND	0	GND	101
102	GND	0	GND	102
103	GND	0	GND	103

VIDEO SLOT 1 and 2 ASSY

VIDEO SLOT I/F ASSY

VIDEO SLOT 1 and 2 ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
104	SCL_VS	3.1	SCL_VS	104
105	GND	0	GND	105
106	SDA_VS	3.1	SDA_VS	106
107	GND	0	GND	107
108	GND	0	GND	108
109	GND	0	GND	109
110	V+12V	12.9	V+12V	110
111	GND	0	GND	111
112	NC	0	NC	112
113	GND	0	GND	113
114	V+3.3STB	3.3	V+3.3STB	114
115	V+13.5	13.6	V+13.5	115
116	V+13.5	13.6	V+13.5	116
117	IN4_DET	0	IN4_DET	117
118	IN3_DET	0	IN3_DET	118
119	SLOT_ST2	3	SLOT_ST2	119
120	IR	5.1	IR	120
121	NC	0	NC	121
122	NC	0	NC	122
123	GND	0	GND	123
124	GND	0	GND	124
125	3G4G	3.3	3G4G	125
126	IN5_DET	0	IN5_DET	126
127	GND	0	GND	127
128	DE	2.5	DE	128
129	GND	0	GND	129
130	CLK	1.5	CLK	130
131	GND	0	GND	131
132	BA7_IC1	0/3.3	BA7_IC1	132
133	BA6_IC1	0/3.3	BA6_IC1	133
134	BA5_IC1	0/3.3	BA5_IC1	134
135	BA4_IC1	0/3.3	BA4_IC1	135
136	BA3_IC1	0/3.3	BA3_IC1	136
137	BA2_IC1	0/3.3	BA2_IC1	137
138	BA1_IC1	0/3.3	BA1_IC1	138
139	BA0_IC1	0/3.3	BA0_IC1	139
140	GND	0	GND	140
141	GND	0	GND	141
142	GA7_IC1	0/3.3	GA7_IC1	142
143	GA6_IC1	0/3.3	GA6_IC1	143
144	GA5_IC1	0/3.3	GA5_IC1	144
145	GA4_IC1	0/3.3	GA4_IC1	145
146	GA3_IC1	0/3.3	GA3_IC1	146
147	GA2_IC1	0/3.3	GA2_IC1	147
148	GA1_IC1	0/3.3	GA1_IC1	148
149	GA0_IC1	0/3.3	GA0_IC1	149
150		Ä@		150
151		Ä@		151
152	GND	0	GND	152
153	GND	0	GND	153
154	RA7_IC1	0/3.3	RA7_IC1	154
155	RA6_IC1	0/3.3	RA6_IC1	155
156	RA5_IC1	0/3.3	RA5_IC1	156
157	RA4_IC1	0/3.3	RA4_IC1	157
158	RA3_IC1	0/3.3	RA3_IC1	158
159	RA2_IC1	0/3.3	RA2_IC1	159
160	RA1_IC1	0/3.3	RA1_IC1	160

VIDEO SLOT I/F ASSY

VIDEO SLOT 1 and 2 ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
161	RA0_IC1	0/3.3	RA0_IC1	161
162	GND	0	GND	162
163				163
164				164
165	GND	0	GND	165
166	GND	0	GND	166
167	VSEPSCL	3.3	VSEPSCL	167
168	VSEPSDA	3.3	VSEPSDA	168
169	NC	0	NC	169
170	GET_UART	3.3	GET_UART	170
171	FIRST_RXD	3.3	FIRST_RXD	171
172	NC	0	NC	172
173	EMGREQ1_S	0	EMGREQ1_S	173
174	EMGREQ2_S	0	EMGREQ2_S	174
175	IC1S_OE	0	IC1S_OE	175
176	NC	0	NC	176
177	NC	0	NC	177
178	NC	0	NC	178
179	SLOT_ST3	0.4	SLOT_ST3	179
180	M_CHOICE	0	M_CHOICE	180
181	SOUND2	0	SOUND2	181
182	GND	0	GND	182
183	GND	0	GND	183
184	DSUBH	4.5	DSUBH	184
185	GND	0	GND	185
186	DSUBV	4.95	DSUBV	186
187	GND	0	GND	187
188	GND	0	GND	188
189	IN5_VD	3.3	IN5_VD	189
190	HYOUJI_X	0	HYOUJI_X	190
191	GPC3	0	GPC3	191
192	GPC4	0	GPC4	192
193	NC	0	NC	193
194	VYOB14	0	VYOB14	194
195	VYOB15	0	VYOB15	195
196	VYOB16	0	VYOB16	196

5. PCB PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56×10^1 \rightarrow 561 RD1/4PU 561 J
 47k Ω \rightarrow 47×10^3 \rightarrow 473 RD1/4PU 473 J
 0.5 Ω \rightarrow R50 RN2H R 50 K
 1 Ω \rightarrow 1R0 RS1P 1R0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562×10^1 \rightarrow 5621 RN1/4PC 5621 F

Mark No. Description Part No. LIST OF ASSEMBLIES

NSP	1..50 ADDRESS ASSY	AWV2069
NSP	2..50 ADDRESS ASSY	AWZ6839
NSP	1..50 SCAN FUKUGO ASSY	AWV2036
NSP	2..50 SCAN A ASSY	AWZ6809
NSP	2..50 SCAN B ASSY	AWZ6810
NSP	2..X CONNECTOR A ASSY	AWZ6811
NSP	2..X CONNECTOR B ASSY	AWZ6812
NSP	1..50 X DRIVE ASSY	AWV2034
	2..PANEL SENSOR ASSY	AWZ6795
	2..50 X DRIVE ASSY	AWZ6808
	1..50 Y DRIVE ASSY	AWV2035
NSP	1..RGB ASSY	AWV2095
	2..SIDE KEY ASSY	AWZ6852
	2..RGB ASSY	AWZ6883
NSP	1..CMX FUKUGO ASSY	AWV2096
	2..AV I/O ASSY	AWZ6847
	(PDP-504CMX type)	
	2..AV I/O ASSY	AWZ6893
	(PDP-50MXE1, PDP-50MXE1-S type)	
	2..AUDIO AMP ASSY	AWZ6848
	2..COMM SLOT ASSY	AWZ6849
	2..COMM SLOT I/F	AWZ6850
	2..VIDEO SLOT I/F ASSY	AWZ6851
	(PDP-504CMX type)	
	2..VIDEO SLOT I/F ASSY	AWZ6901
	(PDP-50MXE1, PDP-50MXE1-S type)	
	2..KEY CONTROL ASSY	AWZ6853
	2..LED OPT ASSY	AWZ6854
	2..IR RECIVE ASSY	AWZ6855
	2..SP TERMINAL ASSY	AWZ6856
	2..SP TERMINAR ASSY	AWZ6857
	(PDP-504CMX type)	
	2..SP TERMINAR ASSY	AWZ6896
	(PDP-50MXE1, PDP-50MXE1-S type)	
	2..COVER ASSY	AWZ6858
	2..AV I/O I/F ASSY	AWZ6859
	1..DIGITAL VIDEO ASSY	AWV2100
	1..VIDEO SLOT1 ASSY	AWV2097
	(For PDA-5003)	
	1..VIDEO SLOT2 ASSY	AWV2098
	(For PDA-5004)	

CONTRAST OF PCB ASSEMBLIES

AV I/O ASSY

AWZ6847 and AWZ6893 are constructed the same except for the following :

Mark	No. Description	AWZ6847	AWZ6893
	[AV I/O BLOCK]		
	R7771	RS1/16S0R0J	Not used
	R7772	Not used	RS1/16S0R0J

VIDEO SLOT I/F ASSY

AWZ6851 and AWZ6901 are constructed the same except for the following :

Mark	No. Description	AWZ6851	AWZ6901
	R8881	RS1/16S0R0J	Not used
	R8882	Not used	RS1/16S0R0J

SP TERMINAL R ASSY

AWZ6857 and AWZ6896 are constructed the same except for the following :

Mark	No. Description	AWZ6857	AWZ6896
	R9991	RS1/16S0R0J	Not used
	R9992	Not used	RS1/16S0R0J

PCB PARTS LIST for PDP-504CMX/LUC

Mark No. Description Part No.

50 ADDRESSASSY

[50 ADR LOGICBLOCK] SEMICONDUCTORS

IC1501 PEE001B

COILS AND FILTERS

F1501-F1503 ATF1194

CAPACITORS

C1553, C1556, C1559, C1560, C1563 ACG1105
 C1501, C1502 ACH1357
 C1503-C1507, C1552, C1555, C1558 CKSSYF104Z16
 C1561, C1564 CKSSYF104Z16

RESISTORS

R1510, R1519, R1522, R1526 RAB4C470J
 R1505-R1509 RS1/16SS1000F
 Other Resistors RS1/16S###J

OTHERS

CN1501 40P FFC CONNECTOR AKM1215

Mark No. **Description** **Part No.**

Mark No. **Description** **Part No.**

**[50 ADR RESONANCE BLOCK]
SEMICONDUCTORS**

K3001, K3004, K3009, K3015, K3017 AKX9002
TEST PIN
K3019, K3021 TEST PIN AKX9002

A IC1601-IC1603 TND304S
Q1604 2SA1163
Q1601 HAT1081R
Q1602, Q1603 HAT3019R
D1601 1SS302

**50 SCAN B ASSY
SEMICONDUCTORS**

IC3201-IC3206 AN16003A
D3201 KU10N16

D1608, D1609, D1617, D1618 EC10UA20
D1610, D1611, D1616, D1619, D1620 EC11FS2
D1604, D1612 MA126
D1602, D1606, D1607, D1614, D1615 UDZS15B
D1621, D1622 UDZS24B

CAPACITORS

C3201, C3211, C3212, C3222, C3223 ACG1088
(0.1microF/250V)
C3233, C3234, C3244, C3245 ACG1088
(0.1microF/250V)
C3255, C3256, C3266 ACG1088
(0.1microF/250V)
C3203, C3204, C3214, C3215, C3226 CCSRCH101J50
C3228, C3237, C3239, C3247, C3251 CCSRCH101J50

COILS AND FILTERS

B L1601, L1602 ATH1135

CAPACITORS

C1609, C1615 (0.47microF) ACE1172
C1605, C1607, C1608, C1613, C1614 ACG1101
(0.01microF/100V)
C1618 ACH1357
C1603 (47microF/16V) ACH1391
C1601, C1602 (56microF/80V) ACH1405

C1604, C1606, C1612 CKSSYF104Z16

C3258, C3259 CCSRCH101J50
C3262 CCSRCH151J50
C3206, C3217, C3232, C3243, C3249 CCSRCH181J50
C3261 CCSRCH181J50
C3205, C3210, C3216, C3221 CCSRCH331J50

RESISTORS

R1631 ACN1174
R1633 RS1/16S1202F
R1632 RS1/16S1502F
Other Resistors RS1/16S###J

C3230, C3231, C3241, C3242, C3248 CCSRCH331J50
C3254, C3260, C3265 CCSRCH331J50
C3208, C3209, C3219, C3220, C3227 CCSRCH390J50
C3229, C3238, C3240, C3252, C3253 CCSRCH390J50
C3263, C3264 CCSRCH390J50

50 SCAN A ASSY

SEMICONDUCTORS

IC3001-IC3006 AN16003A
D3001 KU10N16

CAPACITORS

C3001, C3002, C3012, C3013 ACG1088
(0.1microF/250V)
C3023, C3024, C3034, C3035 ACG1088
(0.1microF/250V)
C3045, C3046, C3056, C3057 ACG1088
(0.1microF/250V)
C3005, C3008, C3016, C3019, C3026 CCSRCH101J50
C3029, C3037, C3040, C3048, C3051 CCSRCH101J50

RESISTORS

R3202, R3210, R3216, R3224, R3229 RAB4C221J
R3235 RAB4C221J
Other Resistors RS1/16S###J

D C3060, C3063 CCSRCH101J50
C3004 CCSRCH151J50
C3007, C3018, C3033, C3044, C3050 CCSRCH181J50
C3062 CCSRCH181J50
C3006, C3011, C3017, C3022 CCSRCH331J50

OTHERS

CN3201 15P CONNECTOR AKP1218
K3203, K3208, K3214, K3216, K3218 AKX9002
TEST PIN
K3220, K3221 TEST PIN AKX9002

C3031, C3032, C3042, C3043, C3049 CCSRCH331J50
C3055, C3061, C3066 CCSRCH331J50
C3009, C3010, C3020, C3021, C3028 CCSRCH390J50
C3030, C3039, C3041, C3053, C3054 CCSRCH390J50
C3064, C3065 CCSRCH390J50

X CONNECTOR A ASSY

This assembly has no service part.

X CONNECTOR B ASSY

This assembly has no service part.

E C3031, C3032, C3042, C3043, C3049 CCSRCH331J50
C3055, C3061, C3066 CCSRCH331J50
C3009, C3010, C3020, C3021, C3028 CCSRCH390J50
C3030, C3039, C3041, C3053, C3054 CCSRCH390J50
C3064, C3065 CCSRCH390J50

50 X DRIVE ASSY

**[50 X LOGIC BLOCK]
SEMICONDUCTORS**

IC1002 TC74ACT540FT
IC1001 TC74ACT541FT
IC1003 TC74VHC08FT

C3003, C3014, C3025, C3036, C3047 CKSRYB105K6R3
C3058 CKSRYB105K6R3

RESISTORS

R3003, R3011, R3017, R3025, R3030 RAB4C221J
R3036 RAB4C221J
Other Resistors RS1/16S###J

CAPACITORS

C1001 CEHAT470M25
C1002-C1004 CKSRYB104K16

F Other Resistors RS1/16S###J

RESISTORS

R1001, R1002, R1005 RAB4C470J
R1003, R1004, R1007 RAB4C472J

OTHERS

CN3001 15P CONNECTOR AKP1218

5			7			8		
Mark No.	Description	Part No.	Mark No.	Description	Part No.			
OTHERS			Q1205		2SK3116-Z			
CN1001	30P FFC CONNECTOR	AKM1218	Q1206, Q1208		DTC124EK			
			Q1201		HN1B04FU			A
			D1212		1SS302			
			D1211, D1213, D1216		1SS355			
			D1201, D1207		EC10QS04			
			D1204, D1301		EC11FS4			
			D1214		EC8FS6			
			D1208		UDZS5.6B			
			COILS AND FILTERS					
			L1204, L1205		ATH1112			
			L1202		LFEA100J			
			L1203, L1206		LFEA470J			B
			CAPACITORS					
			C1214-C1217, C1227-C1230		ACE1163			
			C1233		ACE1169			
			C1244		ACE1170			
			C1209 (0.1microF/630V)		ACG1092			
			C1219, C1231		ACH1358			
			C1224		CEHAT101M16			
			C1301		CEHAT221M25			
			C1203, C1207, C1210, C1220, C1223		CEHAT470M25			
			C1238, C1239		CEHAT470M25			
			C1235		CKSRYB102K50			C
			C1213, C1225, C1240, C1241, C1243		CKSRYB104K16			
			C1202, C1205, C1206, C1212, C1302		CKSRYF104Z50			
			RESISTORS					
			R1230		ACN1166			
			R1208, R1321, R1322		ACN1174			
			R1304		ACN1195			
			R1305		ACN1198			
			R1301, R1302, R1314		RS1/10S122J			
			R1226, R1251		RS1MMF331J			
			R1235, R1236		RS2MMF121J			D
			Other Resistors		RS1/16S###J			
			OTHERS					
			KN1201-KN1205, KN1208-KN1214		ANK-142			
			GROUND PLATE					
			CN1201 12P TOP POST		B12B-EH			
			[50 X D-D CON BLOCK]					
			SEMICONDUCTORS					
			IC1404		AN1431M			
			IC1402		MIP161			E
			IC1401, IC1403		TLP181(P-GR)			
			Q1401		2SA1037K			
			Q1402		2SC2412K			
			D1407, D1408		EC11FS2			
			D1404		EC8FS6			
			D1401, D1403		UDZS5.6B			
			COILS AND FILTERS					
			L1401		ATH1110			
			T1401		ATK1153			
			CAPACITORS					F
			C1401, C1402		ACH1361			
			C1404		CEHAT101M16			
			C1405		CEHAT101M25			

Mark No. Description**Part No.**

C1409
C1403, C1407, C1408, C1411

CEHAT331M16
CKSRYB104K16

A

C1406 CKSRYF104Z50

RESISTORS

R1405, R1406, R1408-R1410, R1414
R1420
R1403
R1401, R1404
R1417

RS1/10S3602F
RS1/16S1101F
RS1/16S2702F
RS1/16S4701F
RS1/16S7500F

VR1401
Other Resistors

CCP1390
RS1/16S###J

B

RESISTORS

Other Resistors

RS1/16S###J

OTHERS

1002 CARD SPACER
1001 DRIVE SIRICON SHEET
1001 PLATE X
1001 DRIVE HEATSINK A
1001 SCREW
1002 SCREW

AEC1957
AEH1062
ANG2622
ANH1613
BMZ30P080FZK
PMB30P060FNI

C

**PANEL SENSOR ASSY
SEMICONDUCTORS**

IC1072
IC1071

MM1522XU
MM3012XN

D

CAPACITORS

C1075
C1074
C1071, C1076
C1072, C1073

ACH1357
CKSRYB103K50
CKSRYB104K16
CKSRYF105Z10

E

RESISTORS

R1076, R1078
Other Resistors

RS1/16S1001F
RS1/16S###J

F

**50 Y DRIVE ASSY
[50 Y LOGIC BLOCK]
SEMICONDUCTORS**

IC2002
IC2001, IC2003
IC2005
IC2004
Q2001

TC74ACT540FT
TC74ACT541FT
TC74VHC08FT
TC74VHC541FT
DTC124EK

F

CAPACITORS

C2001
C2010, C2011
C2002-C2006

CEHAT470M16
CKSRYB104K16
CKSRYF104Z50

RESISTORS

R2018, R2019
R2002, R2004, R2013-R2015
R2005, R2006, R2012, R2016, R2017
Other Resistors

RAB4C102J
RAB4C470J
RAB4C472J
RS1/16S###J

F

OTHERS

CN2001

AKM1201

Mark No. Description**Part No.****[50 Y RESONANCE BLOCK]
SEMICONDUCTORS**

IC2211
IC2201, IC2202
Q2213
Q2202, Q2211, Q2212, Q2214
Q2205, Q2206, Q2208, Q2209

BA10393F
TND506MD
2SC2412K
2SK3560
2SK3723

Q2201, Q2204, Q2207, Q2210
D2209, D2223
D2230, D2232
D2202-D2205, D2207, D2208
D2213, D2214, D2216-D2219, D2222

CPH5506
1SS302
1SS355
EC11FS4
EC11FS4

D2226, D2227
D2201, D2206, D2211, D2220, D2229
D2215, D2228
D2210, D2224

EC11FS4
FCU20A30
FCU20A30H
UDZS16B

COILS AND FILTERS

L2203, L2205 CHOKE COIL
L2204 CHOKE COIL
L2202 CHOKE COIL
L2201

ATH1119
ATH1155
ATH1156
LFEA470J

CAPACITORS

C2212-C2214, C2225-C2227
C2211, C2224 (100pF/630V)
C2210, C2223 (0.1microF/630V)
C2202, C2205, C2216, C2217
C2230, C2232, C2233, C2235

ACE1168
ACG1104
ACG1108
CCSRCH331J50
CKSRYB104K16

C2203, C2218
C2201, C2208, C2215, C2219

CKSRYB105K6R3
CKSYB105K25

RESISTORS

R2240, R2241
R2244-R2247
R2204, R2205, R2211, R2213
R2220, R2221, R2224, R2228, R2253
R2234

RS1/10S1003F
RS1/10S100J
RS1/10S2R2J
RS1/10S2R2J
RS1/16S1202F

R2235
R2233
R2242
R2215, R2230
VR2201-VR2204

RS1/16S3301F
RS1/16S5601F
RS1/16S8201F
RS1MMF101J
CCP1390

Other Resistors

RS1/16S###J

OTHERS

3301 SPACER
3501 SCREW

AEH1075
PMH30P080FMC

**[50 Y SUS BLOCK]
SEMICONDUCTORS**

IC2302, IC2308
IC2305
IC2303, IC2307
IC2301, IC2304, IC2309
Q2310

HCPL-M611
NJM2872F05
STK795-513
TND301S
2SC2412K

Q2303, Q2307
Q2301
Q2302, Q2308, Q2312
Q2309
D2302

2SD1898
2SJ522
2SK3325-Z
HN1B04FU
1SS302

5			6			7			8		
Mark No.	Description	Part No.	Mark No.	Description	Part No.	Mark No.	Description	Part No.	Mark No.	Description	Part No.
D2319, D2320		EC10QS04	IC2401		MIP0223SC						
D2305		EC11FS4	IC2402-IC2405, IC2407-IC2409		TLP181(P-GR)						
D2301		UDZS16B	Q2402, Q2407		2SA1037K						
D2306, D2318		UDZS5.6B									
COILS AND FILTERS											
L2306, L2307		ATH1112	Q2410		2SA1163						
L2304		LFEA100J	Q2417		2SA1535						
L2308		LFEA101J	Q2411-Q2414, Q2416		2SC2412K						
L2301, L2302, L2305		LFEA470J	Q2405		2SC2713						
			Q2403		2SD1664						
CAPACITORS											
C2309-C2312, C2326, C2327		ACE1163	Q2401, Q2404		2SD1898						
C2329, C2330		ACE1163	Q2415		HN1C01FU						
C2314		ACE1165	D2430		1SS301						
C2302		ACG1092	D2410, D2419, D2436		1SS302						
C2316, C2331		ACH1358	D2409, D2418		1SS355						
C2303		ACH1361	D2404-D2407		EC11FS2						
C2336		ACH1393	D2403, D2414		EC11FS4						
C2306, C2334		CEHAT221M25	D2402		EC8FS6						
C2308, C2324, C2339, C2340		CEHAT470M16	D2427		RD91PA						
C2304, C2320, C2338		CEHAT470M25	D2401		U1ZB330						
C2305, C2322, C2323, C2325, C2333		CKSRYB104K16	D2412, D2413, D2422		UDZS15B						
C2341		CKSRYB104K16	D2425, D2426		UDZS27B						
C2301, C2307, C2328		CKSRYF104Z50	D2415		UDZS33B						
			D2432		UDZS4.3B						
			D2423, D2431		UDZS5.6B						
RESISTORS			COILS AND FILTERS								
R2332		ACN1166	T2402		ATK1156						
R2364, R2365		ACN1174	T2403		ATK1157						
R2309		RS1MMF132J	T2401		ATK1158						
R2310, R2311		RS1MMF472J	L2402		LFEA100J						
R2312-R2314, R2322, R2323		RS3LMF100J	L2401		LFEA101J						
R2348, R2352, R2358, R2359		RS3LMF1R8J	L2403		LFEA470J						
Other Resistors		RS1/16S###J									
OTHERS			CAPACITORS								
KN2301-KN2305, KN2310-KN2312		ANK-142	C2406		ACH1360						
KN2314-KN2316 GROUND PLATE		ANK-142	C2401		ACH1361						
CN2301 11P TOP POST		B11B-EH	C2427		CEHAT100M50						
			C2403		CEHAT101M16						
			C2405, C2407, C2417		CEHAT101M25						
[50 Y SCAN BLOCK]											
SEMICONDUCTORS											
IC2101, IC2103-IC2106, IC2108, IC2109		HCPL-M611	C2414		CEHAT221M16						
IC2102, IC2107		TC74ACT540FT	C2410		CEHAT221M25						
			C2411		CEHAT331M25						
COILS AND FILTERS			C2420		CEHAT470M2A						
L2101-L2103		LFEA100J	C2409, C2419		CKSRYB103K50						
CAPACITORS			C2402, C2412, C2413, C2423, C2425		CKSRYB104K16						
C2104, C2111, C2116, C2117		ACH1392	C2431, C2432, C2434-C2436		CKSRYB104K16						
C2101, C2107, C2113		CEHAT221M16	C2441-C2443		CKSRYB104K16						
C2102, C2103, C2105, C2106		CKSRYB104K16	C2415, C2421, C2428		CKSRYB105K6R3						
C2108-C2110, C2112, C2114		CKSRYB104K16	C2404, C2408, C2416, C2418, C2426		CKSRYF104Z50						
RESISTORS			C2429		CKSRYF104Z50						
R2121, R2128		RAB4C472J	RESISTORS								
Other Resistors		RS1/16S###J	R2429		ACN1225						
			R2435, R2439		RS1/10S2202F						
OTHERS			R2402-R2404		RS1/10S3902F						
CN2101, CN2102 15P CONNECTOR		AKM1200	R2442		RS1/16S1201F						
			R2468		RS1/16S1202F						
[50 Y D-D CON BLOCK]											
SEMICONDUCTORS			R2424		RS1/16S2001F						
IC2410-IC2412		AN1431M	R2420, R2427, R2438		RS1/16S2201F						
IC2406		BA10358F	R2467		RS1/16S3301F						
			R2457-R2460		RS1/16S4701F						

Mark No. Description**Part No.**

R2506

RS3LMF151J

VR2401, VR2402
Other ResistorsCCP1390
RS1/16S###J**OTHERS**2401 HEATSINK
2401 SCREW
2002 CARD SPACER
2001 DRIVE SIRICON SHEET
2001 PLATE YANH1614
BBZ30P080FZK
AEC1957
AEH1062
ANG25572001 DRIVE HEATSINK A
2001 SCREW
2002 SCREWANH1613
BMZ30P080FZK
PMB30P060FNI**RGB ASSY****[RGB BLOCK]****SEMICONDUCTORS**IC7411
△IC7412
IC7402
IC7401
IC7404BD6522F
M5291FP
MM1522XU
MM3012XN
NJM12904V△IC7408, IC7409
△IC7405, IC7410
△IC7406, IC7407
IC7403
Q7405PQ05DZ11
PQ20WZ11
PQ3DZ13
TC74VHC08FT
2SA1586Q7407, Q7408, Q7410, Q7411
Q7404
Q7401
Q7409
D7408HN1A01FU
HN1C01FU
RN1901
RN1902
1SS301D7407, D7409-D7414
D7415, D74161SS355
EC11FS2**COILS AND FILTERS**

L7401

ATH1125

CAPACITORSC7408
C7414, C7419, C7434, C7437
(100/25V)
C7447, C7450 (47microF/16V)
C7416, C7423, C7424, C7430
(100microF/16V)
C7418, C7421, C7426, C7432, C7445
(100microF/6.3V)
C7452 (100microF/6.3V)
C7403 (22microF/16V)
C7428, C7429, C7448
C7440, C7459-C7466
C7407, C7409, C7453-C7455ACH1357
ACH1374
ACH1391
ACH1394
ACH1396
ACH1396
ACH1400
CCSRCH221J50
CKSRYB102K50
CKSRYB103K50C7457, C7458
C7436
C7446
C7413, C7435
C7402, C7410CKSRYB103K50
CKSRYB104K16
CKSRYB821K50
CKSRYF104Z50
CKSRYF105Z10C7404-C7406, C7411, C7412, C7415
C7417, C7420, C7422, C7425, C7427
C7431, C7433, C7439, C7441-C7444
C7449, C7451CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16**Mark No. Description****Part No.****RESISTORS**R7402, R7405, R7417
R7426
R7480
R7412, R7420, R7486
R7437, R7439, R7467, R7469, R7476RAB4CQ101J
RAB4CQ103J
RS1/10S1R5J
RS1/16S1001F
RS1/16S1002FR7461
R7422
R7440, R7445
R7477
R7484RS1/16S1501F
RS1/16S1800F
RS1/16S2201F
RS1/16S2202F
RS1/16S3301FR7438
R7465
R7460
R7447
R7478RS1/16S4700F
RS1/16S4702F
RS1/16S6201F
RS1/16S7500F
RS1/16S8201F

Other Resistors

RS1/16S###J

OTHERSCN7405 12P PLUG
CN7401 15P PLUG
CN7410 50P PLUGAKM1203
AKM1232
AKM1270**[MAIN LPF BLOCK]****SEMICONDUCTORS**IC6402
IC6404
IC6403
IC6401
IC6407AN5870SB
BA7078AF
BA7657F
SM5301BS
TC74VHC08FTIC6405
Q6419-Q6421
Q6407, Q6417
Q6402-Q6406, Q6408, Q6410, Q6412
D6404TC74VHC125FT
2SA1586
DTC124EUA
HN1B04FU
1SS302**COILS AND FILTERS**L6401
L6402LCTAW4R7J2520
LCTAWR68J2520**CAPACITORS**C6409, C6436, C6437, C6462, C6469
C6402, C6405, C6406, C6427, C6428
C6431 (47microF/16V)
C6416, C6417, C6424 (100microF/16V)
C6433 (10microF/16V)ACH1357
ACH1391
ACH1391
ACH1394
ACH1399C6439 (22microF/16V)
C6445
C6435, C6467, C6468
C6401, C6403, C6404, C6414, C6415
C6423, C6429, C6430, C6432, C6438ACH1400
CCSRCH151J50
CCSRCH470J50
CKSRYB103K50
CKSRYB103K50C6446, C6449, C6451, C6454, C6456
C6459, C6461, C6470-C6476
C6463
C6408, C6411, C6412, C6421, C6455
C6457, C6460CKSRYB103K50
CKSRYB103K50
CKSRYB104K25
CKSRYB105K6R3
CKSRYB105K6R3C6458
C6443
C6442
C6407, C6410, C6413, C6418-C6420
C6425, C6426, C6434, C6440, C6441CKSRYB471K50
CKSRYB474K10
CKSRYB562K50
CKSSYF104Z16
CKSSYF104Z16

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
C6444, C6447, C6448, C6450 C6452, C6453	CKSSYF104Z16 CKSSYF104Z16	Q6603, Q6604 Q6605	DTCT124EUA HN1B04FU	
RESISTORS		COILS AND FILTERS		A
R6489 R6422 R6526-R6528 R6428, R6429 R6547-R6549	RAB4CQ470J RS1/16S1101F RS1/16S2200F RS1/16S3000F RS1/16S75R0F	F6601 L6701	ATF1194 LCTAWR68J2520	
Other Resistors	RS1/16S###J			
OTHERS		CAPACITORS		
K6401-K6406 TEST PIN CN6402 6P PLUG	AKX9002 KM200NA6	C6635-C6637, C6640 C6633 (10microF/16V) C6644 C6638 C6604, C6624	ACH1357 ACH1399 CCSRCH151J50 CKSRYB103K50 CKSRYB104K16	
[MAIN AD BLOCK]		C6648 C6608, C6611, C6612, C6621 C6630-C6632 C6646, C6656-C6661 C6609, C6614, C6623	CKSRYB104K25 CKSRYB105K6R3 CKSRYB105K6R3 CKSRYB471K50 CKSRYB473K16	B
SEMICONDUCTORS		C6642 C6641 C6602 C6601 C6605-C6607, C6610, C6613	CKSRYB474K10 CKSRYB562K50 CKSRYB822K50 CKSRYB823K16 CKSSYF104Z16	
IC6001 IC6002-IC6008 Q6001 D6001	CXA3516AR TC74LCX541FT 2SC4116 1SS355	C6615-C6620, C6625-C6629, C6634 C6639, C6643, C6645, C6647 C6649-C6655	CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16	C
COILS AND FILTERS		RESISTORS		
L6001	LCTAWR68J2520	R6699-R6710, R6723-R6728 R6729-R6734 R6608, R6613, R6621, R6627 R6643, R6644, R6667-R6672 R6676-R6678, R6681-R6685	RAB4CQ0R0J RAB4CQ101J RAB4CQ470J RAB4CQ470J RAB4CQ470J	
CAPACITORS		R6612, R6619, R6620 R6625 R6607, R6611, R6626 R6601 Other Resistors	RS1/16S1000F RS1/16S1101F RS1/16S1300F RS1/16S2701F RS1/16S###J	D
C6001, C6005, C6010, C6028, C6041 C6043, C6051, C6054 (100microF/6.3V) C6020 C6011 C6017	ACH1396 ACH1396 CCSRCH101J50 CCSRCH220J50 CCSRCH331J50	OTHERS		
C6003, C6018, C6024, C6025 C6033, C6034, C6037, C6038, C6045 C6062-C6068 C6002, C6004, C6006-C6009 C6012-C6016, C6021-C6023	CKSRYB105K6R3 CKSRYB105K6R3 CKSRYB471K50 CKSSYF104Z16 CKSSYF104Z16	K6601-K6607 TEST PIN	AKX9002	
C6026, C6027, C6029-C6032 C6035, C6036, C6039, C6040, C6042 C6044, C6046-C6050, C6052, C6053 C6055-C6061	CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16	[BUS SW1 BLOCK]		
RESISTORS		SEMICONDUCTORS		
R6001, R6004, R6013, R6014 R6020, R6021, R6024, R6027, R6033 R6038, R6044, R6054 R6073-R6085 R6023	RAB4CQ100J RAB4CQ100J RAB4CQ100J RAB4CQ330J RN1/16SE3001D	IC5701	PD6435A	
R6018 R6016 R6019 Other Resistors	RS1/16S2201F RS1/16S2701F RS1/16S3301F RS1/16S###J	CAPACITORS		
OTHERS		C5701 (47microF/16V) C5709, C5710 C5721-C5737 C5702-C5708, C5711, C5712 C5714-C5718	ACH1391 CCSRCH150J50 CKSRYB103K50 CKSSYF104Z16 CKSSYF104Z16	E
K6001-K6007, K6010-K6013 TEST PIN	AKX9002	RESISTORS		
[SUB LPF & AD BLOCK]		R5703-R5706, R5708-R5712, R5714 R5717, R5721, R5735, R5739-R5750 R5755, R5756, R5762, R5763 R5768-R5771 R5728-R5734, R5782-R5787	RAB4CQ100J RAB4CQ100J RAB4CQ100J RAB4CQ100J RAB4CQ103J	
SEMICONDUCTORS		Other Resistors	RS1/16S###J	F
IC6602 IC6604 IC6601 IC6608-IC6614 IC6605	AD9883AKST-110 BA7078AF SM5301BS TC74LCX541FT TC74VHC08FT	OTHERS		
IC6603, IC6607	TC74VHC125FT	CN5701 120P PCI BUS SOCKET X5701 CERAMIC RESONATOR	AKP1220 ASS1169	

Mark No. Description**Part No.****Mark No. Description****Part No.****[BUS SW2 BLOCK]
SEMICONDUCTORS**

IC5801

PD6435A

R7154

Other Resistors

RAB4CQ470J

RS1/16S###J

CAPACITORS

C5801 (47microF/16V)

C5809, C5810

C5802-C5808, C5811, C5812

C5814-C5818

ACH1391

CCSRCH150J50

CKSSYF104Z16

CKSSYF104Z16

RESISTORS

R5816-R5825, R5827, R5835, R5849

R5852, R5854, R5856, R5858, R5860

R5868-R5871, R5877

R5802-R5808, R5812-R5814, R5831

R5837, R5844, R5883

RAB4CQ100J

RAB4CQ100J

RAB4CQ100J

RAB4CQ103J

RAB4CQ103J

R5845, R5850, R5851, R5853, R5855

R5857, R5859, R5861-R5863, R5876

Other Resistors

RAB4CQ470J

RAB4CQ470J

RS1/16S###J

OTHERS

X5801 CERAMIC RESONATOR

ASS1169

[IC2 BLOCK]**SEMICONDUCTORS**

IC7001, IC7002

IC7004

IC7003

HY57V643220CT-7

PE5362A

TC74LCX125FT

COILS AND FILTERS

F7001, F7002 EMI FILTER

ATF1194

CAPACITORS

C7029, C7041 (100microF/6.3V)

C7065

C7066-C7068

C7001-C7024, C7026-C7028

C7032-C7040, C7042-C7063

ACH1396

CCSRCH100D50

CCSRCH221J50

CKSSYF104Z16

CKSSYF104Z16

C7031

DCH1165

RESISTORS

R7034

Other Resistors

RAB4CQ470J

RS1/16S###J

OTHERS

K7001-K7003 TEST PIN

X7001 (85MHz)

AKX9002

ASS1174

[IC3 BLOCK]**SEMICONDUCTORS**

IC7102

IC7101

24LC02B(I)SN

PD5855A

COILS AND FILTERS

F7101, F7102

ATF1194

CAPACITORS

C7103, C7120, C7138 (100microF/6.3V)

C7141

C7101, C7102, C7104-C7119

C7121-C7137, C7139, C7140, C7142

ACH1396

CCSRCH100D50

CKSSYF104Z16

CKSSYF104Z16

RESISTORS

R7102, R7105-R7108, R7110, R7111

R7128, R7129, R7132, R7133

R7136, R7137

RAB4CQ330J

RAB4CQ330J

RAB4CQ330J

OTHERS

CN7101 114P FFC CONNECTOR

K7101, K7102 TEST PIN

AKM1216

AKX9002

[IC3 FLASH BLOCK]**SEMICONDUCTORS**

IC7152

MBM29PL3200BE70PFV

CAPACITORS

C7152, C7153, C7155-C7158, C7160

C7162

CKSSYF104Z16

CKSSYF104Z16

RESISTORS

Other Resistors

RS1/16S###J

[MAIN UCOM BLOCK]**SEMICONDUCTORS**

IC7205

IC7201, IC7204

IC7207

IC7210

IC7203, IC7206

24LC128(I)SN

74VHCT00AMTC

MB91F355APMTGE1

PST3612UR

PST3628UR

IC7209

IC7202

IC7208

Q7201

Q7202

TC74VHC08FT

TC74VHC125FT

TC74VHCT541AFT

2SJ461A

DTC124EUA

D7202

D7203

1SS355

SML-310MT

CAPACITORS

C7205, C7236 (47microF/16V)

C7143, C7203

C7213, C7218

C7248-C7251

C7235, C7245

C7226, C7237

ACH1391

CCSRCH220J50

CCSRCH7R0D50

CKSRYB102K50

CKSRYB103K50

CKSRYB104K16

C7230, C7242

C7216

C7201, C7202, C7209-C7212

C7214, C7215, C7219-C7225

C7227-C7229, C7232-C7234, C7238

CKSRYB104K25

CKSRYB472K50

CKSSYF104Z16

CKSSYF104Z16

CKSSYF104Z16

C7240, C7241, C7243, C7244

C7246, C7247

CKSSYF104Z16

CKSSYF104Z16

RESISTORS

R7231

R7229

R7256

R7218, R7219, R7284-R7286, R7301

R7309, R7311-R7314, R7317

RAB4CQ0R0J

RAB4CQ101J

RAB4CQ103J

RAB4CQ470J

RAB4CQ470J

R7201

R7212, R7232

Other Resistors

RAB4CQ472J

RS1/16S1202F

RS1/16S###J

OTHERS

CN7201 8P PLUG

X7201 CERAMIC RESONATOR

AKM1225

ASS1170

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
SIDE KEY ASSY			C7691, C7692, C7696, C7704, C7706	CKSSYF104Z16
SWITCHES AND RELAYS			C7708-C7711, C7720	CKSSYF104Z16
S4801-S4811	ASG1088			
OTHERS			RESISTORS	
CN4801 8P CONNECTOR	AKM1207		R7751-R7753	RS1/16S2200F
			R7712, R7725	RS1/16S2201F
			R7699-R7701, R7741-R7743	RS1/16S27R0F
			R7653, R7654, R7673, R7674	RS1/16S3301F
			R7709-R7711	RS1/16S75R0F
			Other Resistors	RS1/16S###J
AV I/O ASSY			OTHERS	
[AV I/O ASSY]			CN7602, CN7603 MINI JACK	AKN1069
SEMICONDUCTORS			JA7606, JA7607 15P D-SUB SOCKET	AKP1241
IC7609	24LCS21A		CN7601 15P PLUG	KM200NA15
IC7610, IC7613	AN5870SB			
IC7602, IC7605-IC7607	BA4558F-HT			
IC7603	BD3869AF			
⚠ IC7604	NJM78L09UA			
			[IF UCOM BLOCK]	
			SEMICONDUCTORS	
IC7601, IC7608	TC4052BFT		IC8705	24LC01B
IC7612	TC74AC04FT		IC8702	HD64F3687FP
IC7611	TC74VHCT541AFT		IC8703	PST9230N
Q7602, Q7605, Q7702	2SC4116		IC8701	TC74VHC08FT
Q7603	DTA124EUA		IC8704	TC7W126FU
Q7604, Q7606-Q7608	DTC124EUA		Q8701	2SJ461A
Q7701	HN1C01FU		Q8708	DTA124EUA
Q7601	RN1902		Q8702	DTC124EUA
Q7609	SM6K2			
D7601	1SS301			
			COILS AND FILTERS	
D7606-D7608, D7610, D7611	1SS302		L8702	LCTAWR68J2520
D7613, D7614, D7616, D7617	1SS302			
D7619, D7701	1SS355			
D7602, D7603, D7605, D7609	UDZS5.6B			
D7604	UDZS6.8B			
CAPACITORS			CAPACITORS	
C7633, C7634	CCSRCH101J50		C8706, C8707	CCSRCH120J50
C7673, C7674	CCSRCH220J50		C8708, C8714	CEHAT470M16
C7631, C7632	CCSRCH221J50		C8704, C8718	CEHAT471M6R3
C7611, C7612	CCSRCH471J50		C8717, C8720	CKSRYB103K50
C7722	CEHAT100M50		C8722-C8724	CKSRYB471K50
C7654	CEHAT101M10		C8709	CKSRYB472K50
C7665	CEHAT101M16		C8701-C8703, C8705, C8711-C8713	CKSSYF104Z16
C7623, C7648	CEHAT220M50		C8715, C8716, C8719, C8721, C8725	CKSSYF104Z16
C7705	CEHAT221M6R3			
C7714, C7716, C7718	CEHAT331M10			
			RESISTORS	
C7619, C7635, C7637, C7695, C7697	CEHAT470M16		R8719, R8720, R8723, R8724, R8726	RAB4C101J
C7721	CEHAT470M16		R8702, R8704, R8745	RAB4C103J
C7681, C7686, C7690	CEHAT471M16		R8736	RS1/16S1302F
C7601, C7602, C7609, C7610, C7614	CKSQYB225K10		Other Resistors	RS1/16S###J
C7616, C7638, C7639, C7643, C7653	CKSQYB225K10			
			OTHERS	
C7627-C7630, C7640, C7650	CKSRYB102K50		CN8701 8P PLUG	AKM1225
C7642, C7652, C7660, C7661, C7666	CKSRYB103K50		K8701-K8703 TEST PIN	AKX9002
C7676, C7680, C7685, C7689	CKSRYB103K50		X8702 CERAMIC RESONATOR	ASS1168
C7698-C7703, C7707, C7712, C7713	CKSRYB103K50		X8701 (32.768kHz)	ASS1172
C7715, C7717	CKSRYB103K50		CN8704 6P PLUG	KM200NA6
C7621, C7622	CKSRYB104K16			
C7603, C7620, C7662, C7663, C7667	CKSRYB105K10			
C7675, C7677, C7678, C7684	CKSRYB105K10			
C7693, C7694, C7723	CKSRYB105K10			
C7641, C7651	CKSRYB222K50			
			[DVI BLOCK]	
C7646, C7656	CKSRYB471K50		SEMICONDUCTORS	
C7617, C7618, C7624-C7626, C7636	CKSSYF104Z16		IC7502	24LCS21A
C7644, C7647, C7649, C7655, C7664	CKSSYF104Z16		IC7511	BD6522F
C7668, C7679, C7682, C7683, C7687	CKSSYF104Z16		IC7503	SII1161CTG100
			IC7504-IC7510	TC74LCX541FT
			Q7503	DTA124EUA

Mark No. Description**Part No.**

Q7501, Q7502
D7501
D7503, D7504
D7502

DTC124EUA
1SS301
1SS302
UDZS6.8B

CAPACITORS

C7524, C7526, C7530, C7532
C7534, C7535, C7537, C7538
C7541, C7542, C7546, C7548-C7550
C7504, C7507
C7528, C7578, C7579

CCSRCH101J50
CCSRCH101J50
CCSRCH101J50
CCSRCH221J50
CEHAT101M10

C7522
C7502, C7510, C7516, C7518
C7503, C7506
C7514, C7520, C7573-C7577
C7501, C7509, C7513, C7515, C7517

CEHAT221M6R3
CEHAT470M16
CKSRYB222K50
CKSRYB471K50
CKSSYF104Z16

C7519, C7521, C7523, C7525, C7527
C7529, C7531, C7533, C7536
C7539, C7540, C7543-C7545, C7547
C7551-C7559

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

RESISTORS

R7560-R7565, R7568-R7573
R7524-R7529, R7536, R7540
R7552-R7555
R7578-R7590
R7538

RAB4CQ0R0J
RAB4CQ100J
RAB4CQ100J
RAB4CQ470J
RS1/16S3900F

Other Resistors

RS1/16S###J

OTHERS

CN7501 STEREO MINI JACK
CN7503 24P DVI TERMINAL

AKN1069
AKP1216

AUDIO AMP ASSY**SEMICONDUCTORS**

IC5002
⚠ IC5003
⚠ IC5004
⚠ IC5001
Q5005, Q5007, Q5008

BA4558F-HT
LA4625
PQ12DZ11
SI-8120S
2SA1586

Q5001, Q5009
Q5011, Q5012
Q5013
D5003
D5001

2SC4116
2SD2114K
DTA124EUA
1SS301
1SS302

D5002
D5005

1SS355
RK46

COILS AND FILTERS

L5002

ATH1159

CAPACITORS

C5049, C5080
C5045
C5010
C5022
C5047, C5048, C5081

CEHAT101M16
CEHAT220M50
CEHAT221M10
CEHAT222M16
CEHAT2R2M50

C5050
C5005-C5008, C5016
C5051
C5019, C5020
C5002, C5004, C5017, C5027

CEHAT330M25
CEHAT470M16
CEHATR47M50
CEHAZL471M25
CKSRYB103K50

Mark No. Description**Part No.**

C5055-C5058
C5043, C5044

CKSRYB104K25
CKSRYB222K50

RESISTORS

R5049-R5052
R5053-R5056
R5001
R5005, R5006, R5009, R5010
R5003, R5004, R5007, R5008

RD1/4MUF2R2J
RS1/10S5R6J
RS1/16S1502F
RS1/16S3301F
RS1/16S6801F

Other Resistors

RS1/16S###J

OTHERS

CN5002 6P L-TYPE PLUG
5001 SCREW
KN5001, KN5002
(WRAPPING TERMINAL)

KM200NA6
VBB30P100FNI
VNF1084

COMM SLOT ASSY**SEMICONDUCTORS**

IC9451
IC9452, IC9454
IC4953, IC4955

SP3232ECY
TC74VHC00FT
TC74VHC125FT

CAPACITORS

C9455
C9452, C9469-C9472
C9451, C9453, C9454, C9456-C9458
C9462, C9467, C9468

CEJQ470M6R3
CKSRYB471K50
CKSSYF104Z16
CKSSYF104Z16

RESISTORS

Other Resistors

RS1/16S###J

OTHERS

3500 SCREW
3330 RIVET
JA9453 9P D-SUB SOCKET
JA9451, JA9452 6P MINI DIN JACK
3334 PROTECT SHEET 92

ABA1295
AEP-211
AKP1240
AKP1254
AMR3396

3214 SLOT PANEL 92
3526 HEXAGON HEADED SCREW
9451 SCREW TERMINAL

ANG2611
BBA1051
VNE1949

SEMICONDUCTORS

IC8901
Q8902

TC74VHC00FT
2SC4116

COILS AND FILTERS

L8901

LCTAW221J3225

CAPACITORS

C8902
C8901

CKSRYB104K25
CKSSYF104Z16

RESISTORS

Other Resistors

RS1/16S###J

OTHERS

CN8904
(46P CARD EDGE CONNECTOR)
CN8902 10P L-TYPE PLUG
CN8903 11P L-TYPE PLUG
CN8905 6P L-TYPE PLUG

AKP1252
KM200NA10L
KM200NA11L
KM200NA6L

5

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Mark No.	Description	Part No.
VIDEO SLOT I/F ASSY		
SEMICONDUCTORS		
IC8952		24LC01B
Q8953		DTC124EUA
D8951, D8952		UDZS5.6B
COILS AND FILTERS		
L8951		ATX1008
CAPACITORS		
C8952		CEHAT470M16
C8953		CKSSYF104Z16
RESISTORS		
Other Resistors		RS1/16S###J
OTHERS		
CN8953 120P SOCKET		AKP1219
CN8954 184P PCI BUS SOCKET		AKP1251
CN8955 50P SOCKET		AKP1253
KN8951, KN8952 GROUND PLATE		ANK1664
CN8952 11P L-TYPE PLUG		KM200NA11L
KEY CONTROL ASSY		
SEMICONDUCTORS		
IC9001		PD5719A
Q9001		2SC4116
D9001-D9003, D9005-D9008		1SS302
D9004		1SS355
CAPACITORS		
C9006-C9008		CCSRCH101J50
C9005		CEAT470M16
C9001-C9003		CKSRYB472K50
C9004		CKSSYF104Z16
RESISTORS		
R9008		RAB4C182J
Other Resistors		RS1/16S###J
OTHERS		
CN9002 8P FFC CONNECTOR		AKM1207
X9001 CERALOCK		ASS1162
CN9001 3P L-TYPE PLUG		KM200NA3L
LED OPT ASSY		
SEMICONDUCTORS		
Q9652		DTC143EUA
Q9051		HN1B04FU
Q9651		RN2901
D9051		S9561
D9652		SML-310MT
D9651		SML-311UT
CAPACITORS		
C9652-C9655		CCSRCH101J50
C9054		CKSRYB103K50
C9052, C9055, C9056		CKSRYB105K10
C9051, C9053, C9651		CKSSYF104Z16
RESISTORS		
Other Resistors		RS1/16S###J

7

8

Mark No.	Description	Part No.
IR RECEIVE ASSY		
SEMICONDUCTORS		
Q4901		2SC4116
D4902		1SS302
D4901		1SS355
CAPACITORS		
C4905		CCSRCH101J50
C4901		CEAT470M16
C4903		CKSRYB102K50
C4907		CKSRYB103K50
C4902, C4904		CKSSYF104Z16
RESISTORS		
Other Resistors		RS1/16S###J
SP TERMINAL L ASSY		
SEMICONDUCTORS		
IC9752		MM1522XU
IC9751		MM3012XN
COILS AND FILTERS		
L9701, L9702		ATF1206
CAPACITORS		
C9703, C9704		CCSRCH101J50
C9706, C9708-C9711		CCSRCH221J50
C9753, C9756		CEAT470M16
C9754		CKSRYB103K50
C9752, C9755		CKSRYB105K10
C9705		CKSRYB332K50
C9707		CKSRYF473Z50
C9751, C9757		CKSSYF104Z16
RESISTORS		
R9703, R9704		RD1/2MMF100J
R9757, R9760		RS1/16S1001F
Other Resistors		RS1/16S###J
OTHERS		
CN9701 2P SPEAKER TERMINAL		AKE1041
CN9702 6P PLUG		KM200NA6
SP TERMINAL R ASSY		
COILS AND FILTERS		
L9801, L9802		ATF1206
CAPACITORS		
C9804, C9805		CCSRCH101J50
C9801, C9808-C9811		CCSRCH221J50
C9806		CKSRYB332K50
C9807		CKSRYF473Z50
RESISTORS		
R9803, R9804		RD1/2MMF100J
Other Resistors		RS1/16S###J
OTHERS		
CN9802 2P SPEAKER		AKE1041
COVER ASSY		

This assembly has no service part.

Mark No. Description**Part No.****AV I/O I/F ASSY****OTHERS**

CN2101 120P PCI BUS SOCKET

AKP1220

DIGITAL VIDEO ASSY**[DIGITAL IF BLOCK]****COILS AND FILTERS**

F5001, F5002, F5004, F5005

ATF1194

RESISTORS

R5101-R5115, R5131

RAB4C470J

Other Resistors

RS1/16S###J

OTHERS

CN5001 114P FFC CONNECTOR

AKM1216

CN5002 PH CONNECTOR

AKM1249

K5002-K5004, K5007 TEST PIN

AKX9002

[MODULE UCOM BLOCK]**SEMICONDUCTORS**

IC5206

24LC04B(I)SN

IC5201

M30626FHPGP-P

IC5205

PST3628UR

IC5208

TC74VHC08FT

IC5213

TC74VHC123AFT

IC5214, IC5215

TC74VHC32FT

IC5211, IC5212

TC74VHC541FT

IC5209

TC7W126FU

Q5201

2SJ461A

D5207-D5212

1SS301

D5217, D5218

1SS355

D5201

SML-310LT

SWITCHES

S5201

ASH1047

CAPACITORS

C5213, C5225

ACH1357

C5206, C5223, C5231, C5245-C5262

CKSRYB102K50

C5264

CKSRYB102K50

C5232

CKSRYB104K16

C5263

CKSRYB104K25

C5230

CKSRYB105K6R3

C5205

CKSRYB472K50

C5201-C5204, C5208, C5210-C5212

CKSSYF104Z16

C5218, C5224, C5226, C5227

CKSSYF104Z16

C5243, C5244

CKSSYF104Z16

RESISTORS

R5209, R5211, R5212, R5235

RAB4C101J

R5254, R5255, R5265, R5266

RAB4C101J

R5205

RAB4C103J

R5270, R5271

RAB4C472J

R5256, R5257

RAB4C474J

Other Resistors

RS1/16S###J

OTHERS

CN5201 8P PLUG

AKM1225

CN5202 PH CONNECTOR

AKM1242

K5201 TEST PIN

AKX9002

⚠ X5201 (16MHz)

ASS1178

Mark No. Description**Part No.****[PANEL FLASH BLOCK]
SEMICONDUCTORS**

IC5305

MBM29PL160BD-75PFTN

IC5303

PST3612UR

IC5301

PST3628UR

IC5302

TC74VHC08FT

Q5301

RN1901

D5301-D5310

1SS302

CAPACITORS

C5320

CCSRCH470J50

C5304, C5307

CKSRYB102K50

C5311, C5314

CKSRYB104K16

C5303, C5306

CKSRYB472K50

C5301, C5302, C5305, C5309, C5313

CKSSYF104Z16

C5316

CKSSYF104Z16

RESISTORS

R5317, R5318

RAB4C101J

Other Resistors

RS1/16S###J

OTHERS

CN5301 15P PLUG

AKM1232

K5301 TEST PIN

AKX9002

⚠ X5302 (85MHz)

ASS1174

⚠ X5301 (60MHz)

ASS1176

[IC4 BLOCK]**SEMICONDUCTORS**

IC5401

PD5856A

D5401

SML-310LT

D5402

SML-310MT

COILS AND FILTERS

F5401, F5403, F5409, F5410

ATF1194

CAPACITORSC5401, C5413, C5417, C5424
(100microF/16V)

ACH1396

C5434, C5435

CKSRYB102K50

C5402-C5412, C5414-C5416

CKSSYF104Z16

C5418-C5423, C5425-C5431

CKSSYF104Z16

RESISTORS

R5406, R5421

RAB4C101J

R5408-R5413, R5415, R5416, R5419

RAB4C220J

R5422

RAB4C220J

R5405

RS1/16S5601F

Other Resistors

RS1/16S###J

OTHERS

K5401 TEST PIN

AKX9002

[ADDRESS CN BLOCK]

Other Resistors

RESISTORS

Other Resistors

RS1/16S###J

OTHERS

CN5521 50P CONNECTOR

AKM1201

⚠ CN5501-CN5508 40P CONNECTOR

AKM1217

CN5511 30P CONNECTOR

AKM1218

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
[DIGITAL DD CON BLOCK] SEMICONDUCTORS			C7803, C7812, C7814, C7815 C7813, C7816, C7817 C7823, C7824, C7839, C7844	CKSRYB103K50 CKSRYB105K10 CKSRYB221K50
△ IC5602	PQ05DZ11			
△ IC5603	PQ09DZ11			
Q5601, Q5603	HN1C01FU		C7802, C7807, C7820, C7830 C8102-C8104, C8106, C8108 C8110, C8111, C8113, C8115, C8121 C8124, C8126-C8129, C8132	CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16
Q5605	RN1901			
D5602, D5603, D5609, D5610	1SS355			
D5601	HZU2.2B			
D5604	UDZS5.1B			
CAPACITORS			RESISTORS	
C5601, C5603, C5607, C5614, C5616 (100microF/16V)	ACH1394		R7845-R7848 R8113 R7840, R7841 R8112 R7808, R7809, R7822, R7823, R7834	RS1/10S151J RS1/16S1001F RS1/16S2201F RS1/16S5100F RS1/16S75R0F
C5602, C5604, C5615, C5617 C5605, C5606, C5610	CKSRYB103K50 CKSSYF104Z16			
RESISTORS			R7836, R7837 R8106, R8118 R8108, R8119-R8121 Other Resistors	RS1/16S75R0F RS1MMF100J RS1MMF390J RS1/16S####J
R5601	ACN1162			
R5627	ACN1168			
Other Resistors	RS1/16S####J			
OTHERS			OTHERS	
△ CN5602 PH CONNECTOR 7P	AKM1246		CN7801 4P DIN SOCKET JA7804 BNC SOCKET 5P JA7803 BNC SOCKET 2P JA7801, JA7802 2P PIN JACK 7801, 7802 SCREW TERMINAL	AKP1217 AKX1059 AKX1060 DKB1031 VNE1949
△ CN5601 PH CONNECTOR 11P	AKM1250			
VIDEO SLOT1 ASSY			[IC1 (Y/C) BLOCK SEMICONDUCTORS	
IC7804	BA4558F-HT		IC6257 IC6255 IC6251-IC6254 IC6256 Q6255	24LC01B PD0278A TC7SHU04FU TC7W126FU 2SJ461A
△ IC8104	PQ015YZ01ZP			
△ IC8101	PQ05DZ11			
△ IC8102	PQ09DZ11			
△ IC8103, IC8105	PQ3DZ13			
IC7803	TC4052BFT		Q6258 Q6251, Q6253 Q6256, Q6257	DTA124EUA HN1A01FU HN1B04FU
IC7801, IC7802	TK15420M			
Q7805	2SC4116			
Q7803, Q7804	DTC124EUA			
Q7806	HN1C01FU			
D7801-D7804, D7806-D7808 D7811-D7814, D8106, D8107 D7815, D8101-D8105 D7809, D7810	1SS302 1SS302 1SS355 UDZS5.6B			
COILS AND FILTERS			COILS AND FILTERS	
F8101-F8103	ATF1194		F6251-F6254 L6251, L6253 L6252, L6254 L6257 L6255, L6256	ATF1194 LCTAW120J2520 LCTAW150J2520 LCTAW220J2520 LCTAW330J2520
SWITCHES				
S7801	ASH1047			
CAPACITORS			CAPACITORS	
C7818, C7819 C7850 C8105, C8114, C8125, C8130 C8112 C7808	CCSRCH220J50 CEHAT100M50 CEHAT101M10 CEHAT101M16 CEHAT220M50		C6305, C6306, C6312, C6313 C6272, C6274, C6288, C6290 C6249, C6250 C6273, C6289 C6295, C6321, C6322, C6327-C6330	CCSRCH120J50 CCSRCH220J50 CCSRCH471J50 CCSRCH680J50 CEHAT101M10
C8101, C8131 C8122 C7801, C7847, C7848, C8107, C8109 C8116 C7806	CEHAT221M16 CEHAT221M6R3 CEHAT470M16 CEHAT470M16 CEHAT471M16		C6324 C6297 C6258, C6260 C6265, C6268, C6282, C6285 C6299, C6300, C6309, C6310, C6316	CEHAT470M16 CKSQYB225K10 CKSRYB102K50 CKSRYB104K16 CKSRYB104K16
C7821, C7825, C7835, C7840, C7851 C7827, C7828, C7842, C7843	CEHAT4R7M50 CKSRYB102K50		C6323 C6201, C6301, C6314 C6251, C6253-C6257, C6259 C6261, C6262, C6267, C6269-C6271 C6275-C6279, C6284, C6286, C6287	CKSRYB104K16 CKSRYB105K10 CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16
			C6291-C6294, C6296, C6298 C6302-C6304, C6307, C6308, C6311 C6315, C6317-C6320, C6325, C6326 C6252	CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16 DCH1165

Mark No. Description Part No.

RESISTORS

A

R6251-R6254, R6271, R6275, R6276 RAB4CQ100J
 R6329-R6331 RAB4CQ103J
 R6321, R6322, R6334, R6335, R6339 RS1/16S1000F
 R6273, R6289 RS1/16S1001F
 R6305, R6314 RS1/16S1101F

R6291, R6309, R6313 RS1/16S1301F
 R6323 RS1/16S2400F
 R6277, R6288 RS1/16S2701F
 R6264, R6281 RS1/16S4700F
 R6306, R6307 RS1/16S8201F

Other Resistors RS1/16S###J

OTHERS

B

X6251 (27MHz) ASS1175

[IC1 (CVBS) BLOCK] SEMICONDUCTORS

C

IC6106 HY57V161610DTC-8
 IC6107 PD0278A
 IC6102-IC6105 TC7SHU04FU
 Q6103 DTC124EUA
 Q6101, Q6102 HN1A01FU

Q6107 HN1B04FU

C

COILS AND FILTERS

F6102, F6103, F6105, F6106 ATF1194
 L6101, L6103 LCTAW120J2520
 L6102, L6104 LCTAW150J2520
 L6108 LCTAW220J2520
 L6106 LCTAW330J2520

CAPACITORS

D

C6171, C6172 CCSRCH120J50
 C6126, C6128, C6142, C6144 CCSRCH220J50
 C6127, C6143 CCSRCH680J50
 C6102, C6106, C6115, C6149, C6155 CEHAT101M10
 C6182, C6184, C6186 CEHAT101M10

C6105 CEHAT470M16
 C6151 CKSQYB225K10
 C6112, C6114 CKSRYB102K50
 C6119, C6122, C6136, C6139 CKSRYB104K16
 C6153, C6154, C6168, C6177 CKSRYB104K16

E

C6101, C6175, C6190 CKSRYB105K10
 C6103, C6104, C6107-C6111, C6113 CKSSYF104Z16
 C6116, C6121, C6123-C6125 CKSSYF104Z16
 C6129-C6133, C6138, C6140, C6141 CKSSYF104Z16
 C6145-C6148, C6150, C6152 CKSSYF104Z16

C6156-C6161, C6166, C6167, C6170 CKSSYF104Z16
 C6173, C6174, C6176, C6178-C6181 CKSSYF104Z16
 C6183 CKSSYF104Z16

RESISTORS

F

R6163, R6166, R6178, R6180 RAB4CQ0R0J
 R6101, R6104-R6106, R6120 RAB4CQ100J
 R6124, R6125 RAB4CQ100J
 R6153-R6155 RAB4CQ103J
 R6210-R6213 RAB4CQ121J

R6146, R6159, R6184 RAB4CQ330J
 R6156, R6160, R6161, R6194, R6195 RS1/16S1000F
 R6122, R6140 RS1/16S1001F
 R6175 RS1/16S1101F

Mark No. Description Part No.

R6147, R6174

RS1/16S1301F

R6196 RS1/16S2400F
 R6126, R6138 RS1/16S2701F
 R6113, R6129 RS1/16S4700F
 R6167, R6168 RS1/16S8201F
 Other Resistors RS1/16S###J

[SIGNAL SW BLOCK] SEMICONDUCTORS

IC7902 AN5870SB
 IC7908 TC74VHC08FT
 IC7907 TC74VHC126FT
 IC7905 TC74VHCT541AFT
 Q7903, Q7905, Q7910 DTC124EUA

Q7913, Q7916 HN1A01FU
 Q7901, Q7906, Q7911, Q7915 HN1C01FU
 Q7914 RN1902

CAPACITORS

C7923, C7925, C7926 CEHANP470M10
 C7905 CEHAT101M10
 C7902, C7928, C7929, C7931 CEHAT470M16
 C7908, C7912, C7917 CEHAT471M16
 C7907, C7911, C7916 CKSRYB103K50

C7924, C7927, C7930 CKSRYB105K10
 C7906, C7909, C7910, C7914, C7918 CKSSRYF103Z50
 C7903, C7904, C7913, C7915 CKSSYF104Z16
 C7920-C7922, C7932, C7943 CKSSYF104Z16

RESISTORS

R7902, R7907, R7910, R7914 RAB4CQ0R0J
 R7917, R7918, R7935 RAB4CQ0R0J
 R7903 RAB4CQ103J
 R7905, R7909, R7912 RS1/16S27R0F
 R8040-R8042 RS1/16S75R0F

Other Resistors RS1/16S###J

OTHERS

3201 SCREW ABA1295
 3001 RIVET AEP-211
 3003 PROTECT SHEET 262 AMR3400
 3002 SLOT PANEL 262(A) ANG2653
 3203 SCREW BMZ30P080FZK
 3202 SCREW BPZ30P080FZK

VIDEO SLOT 2 ASSY

SEMICONDUCTORS

IC7804 BA4558F-HT
 ⚠ IC8104 PQ015YZ01ZP
 ⚠ IC8101 PQ05DZ11
 ⚠ IC8102 PQ09DZ11
 ⚠ IC8103, IC8105 PQ3DZ13

IC7803 TC4052BFT
 IC7801, IC7802 TK15420M
 Q7805 2SC4116
 Q7803, Q7804 DTC124EUA
 Q7806 HN1C01FU

D7801-D7804, D7806-D7814 1SS302
 D8106, D8107 1SS302
 D7815, D8101-D8105 1SS355

COILS AND FILTERS

F8101-F8103 ATF1194

5	6	7	8
Mark No.	Description	Part No.	Mark No.
CAPACITORS		Description	Part No.
C7850	CEHAT100M50	C6324	CEHAT470M16
C8105, C8114, C8125, C8130	CEHAT101M10	C6297	CKSQYB225K10
C8112	CEHAT101M16	C6258, C6260	CKSRYB102K50
C7808	CEHAT220M50	C6265, C6268, C6282, C6285	CKSRYB104K16
C8101, C8131	CEHAT221M16	C6299, C6300, C6309, C6310, C6316	CKSRYB104K16
C8122	CEHAT221M6R3	C6323	CKSRYB104K16
C7801, C7847, C7848, C8107, C8109	CEHAT470M16	C6201, C6301, C6314	CKSRYB105K10
C8116	CEHAT470M16	C6251, C6253-C6257, C6259	CKSSYF104Z16
C7806	CEHAT471M16	C6261, C6262, C6267, C6269-C6271	CKSSYF104Z16
C7821, C7825, C7835, C7840, C7851	CEHAT4R7M50	C6275-C6279, C6284, C6286, C6287	CKSSYF104Z16
C7853, C7855	CEHAT4R7M50	C6291-C6294, C6296, C6298	CKSSYF104Z16
C7827, C7828, C7842, C7843	CKSRYB102K50	C6302-C6304, C6307, C6308, C6311	CKSSYF104Z16
C7857, C7858	CKSRYB102K50	C6315, C6317-C6320, C6325, C6326	CKSSYF104Z16
C7803, C7812, C7814, C7815	CKSRYB103K50	C6252	DCH1165
C7813, C7816, C7817	CKSRYB105K10	RESISTORS	
C7823, C7824, C7839, C7844, C7854	CKSRYB221K50	R6251-R6254, R6271, R6275, R6276	RAB4CQ100J
C7859	CKSRYB221K50	R6329-R6331	RAB4CQ103J
C7802, C7807, C7820, C7830	CKSSYF104Z16	R6321, R6322, R6334, R6335, R6339	RS1/16S1000F
C8102-C8104, C8106, C8108	CKSSYF104Z16	R6273, R6289	RS1/16S1001F
C8110, C8111, C8113, C8115, C8121	CKSSYF104Z16	R6305, R6314	RS1/16S1101F
C8124, C8126-C8129, C8132	CKSSYF104Z16	R6291, R6309, R6313	RS1/16S1301F
RESISTORS		R6323	RS1/16S2400F
R8113	RS1/16S1001F	R6277, R6288	RS1/16S2701F
R8112	RS1/16S5100F	R6264, R6281	RS1/16S4700F
R7808, R7809, R7822, R7823, R7834	RS1/16S75R0F	R6306, R6307	RS1/16S8201F
R7836, R7837	RS1/16S75R0F	Other Resistors	RS1/16S###J
R8106, R8118	RS1MMF100J	OTHERS	
R8108, R8119-R8121	RS1MMF390J	X6251 (27MHz)	ASS1175
Other Resistors	RS1/16S###J	[IC1 (CVBS) BLOCK] SEMICONDUCTORS	
OTHERS		IC6106	HY57V161610DTC-8
CN7801 4P DIN SOCKET	AKP1217	IC6107	PD0278A
JA7801-JA7803 2P PIN JACK	DKB1031	IC6102-IC6105	TC7SHU04FU
JA7804 2P PIN JACK	VKB1134	Q6103	DTC124EUA
JA7805 3P PIN JACK	VKB1150	Q6101, Q6102	HN1A01FU
7801, 7802 SCREW TERMINAL	VNE1949	Q6107	HN1B04FU
[IC1 (Y/C) BLOCK] SEMICONDUCTORS		COILS AND FILTERS	
IC6257	24LC01B	F6102, F6103, F6105, F6106	ATF1194
IC6255	PD0278A	L6101, L6103	LCTAW120J2520
IC6251-IC6254	TC7SHU04FU	L6102, L6104	LCTAW150J2520
IC6256	TC7W126FU	L6108	LCTAW220J2520
Q6255	2SJ461A	L6106	LCTAW330J2520
Q6258	DTA124EUA	CAPACITORS	
Q6251, Q6253	HN1A01FU	C6171, C6172	CCSRCH120J50
Q6256, Q6257	HN1B04FU	C6126, C6128, C6142, C6144	CCSRCH220J50
COILS AND FILTERS		C6127, C6143	CCSRCH680J50
F6251-F6254	ATF1194	C6102, C6106, C6115, C6149, C6155	CEHAT101M10
L6251, L6253	LCTAW120J2520	C6182, C6184, C6186	CEHAT101M10
L6252, L6254	LCTAW150J2520	C6105	CEHAT470M16
L6257	LCTAW220J2520	C6151	CKSQYB225K10
L6255, L6256	LCTAW330J2520	C6112, C6114	CKSRYB102K50
CAPACITORS		C6119, C6122, C6136, C6139	CKSRYB104K16
C6305, C6306, C6312, C6313	CCSRCH120J50	C6153, C6154, C6168, C6177	CKSRYB104K16
C6272, C6274, C6288, C6290	CCSRCH220J50	C6101, C6175, C6190	CKSRYB105K10
C6249, C6250	CCSRCH471J50	C6103, C6104, C6107-C6111, C6113	CKSSYF104Z16
C6273, C6289	CCSRCH680J50	C6116, C6121, C6123-C6125	CKSSYF104Z16
C6295, C6321, C6322, C6327-C6330	CEHAT101M10	C6129-C6133, C6138, C6140, C6141	CKSSYF104Z16
		C6145-C6148, C6150, C6152	CKSSYF104Z16

	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
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A	C6156-C6161, C6166, C6167, C6170	CKSSYF104Z16
	C6173, C6174, C6176, C6178-C6181	CKSSYF104Z16
	C6183	CKSSYF104Z16

RESISTORS

■	R6163, R6166, R6178, R6180	RAB4CQ0R0J
	R6101, R6104-R6106, R6120	RAB4CQ100J
	R6124, R6125	RAB4CQ100J
	R6153-R6155	RAB4CQ103J
	R6210-R6213	RAB4CQ121J

B	R6146, R6159, R6184	RAB4CQ330J
	R6156, R6160, R6161, R6194, R6195	RS1/16S1000F
	R6122, R6140	RS1/16S1001F
	R6175	RS1/16S1101F
	R6147, R6174	RS1/16S1301F

■	R6196	RS1/16S2400F
	R6126, R6138	RS1/16S2701F
	R6113, R6129	RS1/16S4700F
	R6167, R6168	RS1/16S8201F
	Other Resistors	RS1/16S###J

[SINGLE SW BLOCK]

SEMICONDUCTORS

C	IC7902	AN5870SB
	IC7908	TC74VHC08FT
	IC7907	TC74VHC126FT
	IC7905	TC74VHCT541AFT
	Q7903, Q7905, Q7910	DTC124EUA

■	Q7913, Q7916	HN1A01FU
	Q7901, Q7906, Q7911, Q7915	HN1C01FU
	Q7914	RN1902

CAPACITORS

D	C7923, C7925, C7926	CEHANP470M10
	C7905	CEHAT101M10
	C7902, C7928, C7929, C7931	CEHAT470M16
	C7908, C7912, C7917	CEHAT471M16
	C7907, C7911, C7916	CKSRYB103K50

■	C7924, C7927, C7930	CKSRYB105K10
	C7906, C7909, C7910, C7914, C7918	CKSRYF103Z50
	C7903, C7904, C7913, C7915	CKSSYF104Z16
	C7920-C7922, C7932, C7943	CKSSYF104Z16

RESISTORS

E	R7902, R7907, R7910, R7914	RAB4CQ0R0J
	R7917, R7918, R7935	RAB4CQ0R0J
	R7903	RAB4CQ103J
	R7905, R7909, R7912	RS1/16S27R0F
	R8040-R8042	RS1/16S75R0F

Other Resistors	RS1/16S###J
-----------------	-------------

OTHERS

■	3201 SCREW	ABA1295
	3001 REVET	AEP-211
	3003 PROTECT SHEET 262	AMR3400
	3002 SLOT PANEL 262(B)	ANG2654
	3202 SCREW	BPZ30P080FZK

6. ADJUSTMENT



1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

6.1 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	No adjustment required
DIGITAL VIDEO Assy	➡	Refer to the "7.1.6 BACKUP THE ADJUSTMENT VALUES FOR THE MAIN UNIT."
50 X DRIVE Assy	➡	No adjustment required
50 Y DRIVE Assy	➡	No adjustment required
AV I/O Assy	➡	No adjustment required
RGB Assy	➡	No adjustment required
VIDEO SLOT Assy	➡	No adjustment required
Other assemblies	➡	No adjustment required
Service Panel	➡	VSUS and VOFS voltage setup, Panel WB check

■ When any part in the following assemblies is replaced

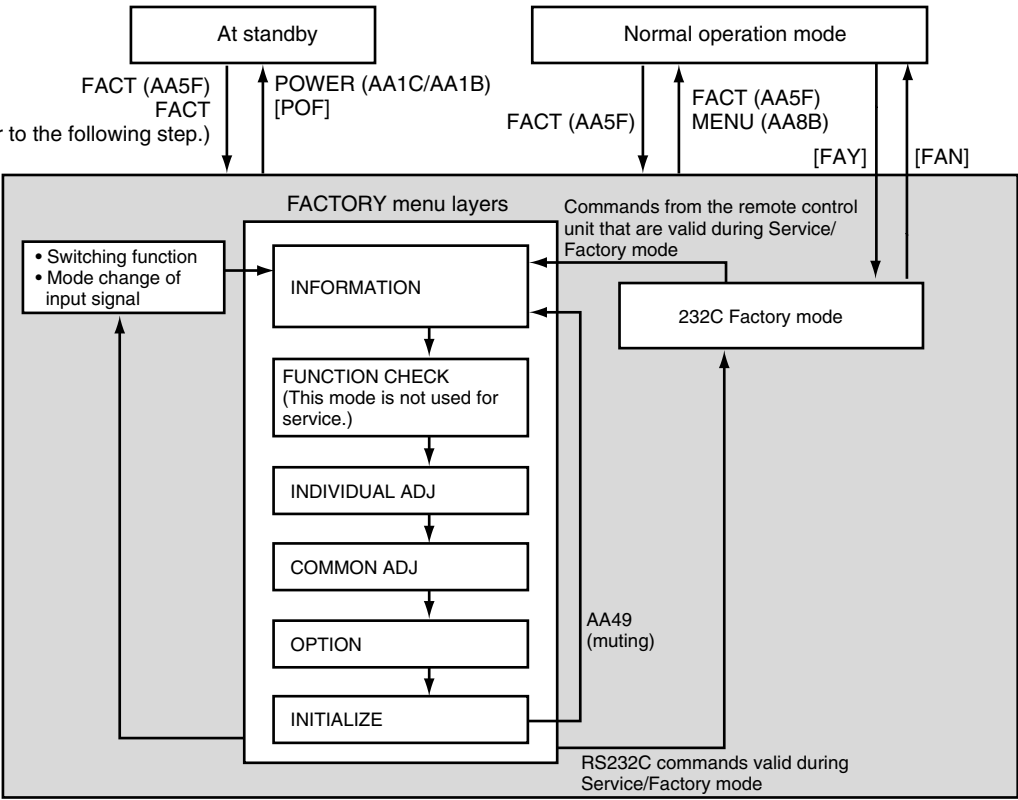
POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
DIGITAL VIDEO Assy	➡	No adjustment required
50 X DRIVE Assy	➡	No adjustment required
50 Y DRIVE Assy	➡	No adjustment required
AV I/O Assy	➡	Replacement and repair of IC7610 and IC8705 are impossible.
RGB Assy	➡	Replacement and repair of IC6001, IC6401, IC6403, IC6601, IC6602 and IC7205 are impossible.
VIDEO SLOT Assy	➡	Replacement and repair of IC6107, IC6255, IC6257 and IC7902 are impossible.
Other assemblies	➡	No adjustment required

1 2 3 4

6.2 SERVICE FACTORY MODE

Commands in Service/Factory mode must be issued using the remote control unit supplied with the Plasma Display.

State Transition Diagram



6.3 HOW TO ENTER FACTORY MODE

For adjustments, it is necessary to enter Service/Factory mode. There are two ways to enter Service/Factory mode: by using the remote control unit, or by using RS232C commands from your PC.

A

- When the unit is in Standby (STB) Mode**
- Please refer to the technical document (Service Knowhow)

■

When the power is on

No.	Method	Procedures
1	Remote control unit	When the conventional Service/Factory code (AA5F) is sent, the unit will enter Service/Factory mode.
2	PC	Connect your PC via its RS232C port, and send the FAY command.

B

■

C

■

D

■

E

■

F

■ Operation when Service/Factory mode is entered

● Functions whose settings are set to OFF

The settings of the following functions are set to OFF when Service/Factory mode is entered (including when this mode is entered by receiving the FAY command):

- SPLIT (The display will become that of the main input.)
- STILL
- MASK CONTROL
- ORBITER
- POINT ZOOM

● User's setting data

User setting data are set as follows:

- Although user's adjustment data for video/audio adjustment and various adjustment are stored in memory, they are not reflected on the display.
- Although user's adjustment data for display are stored in memory, display adjustment data are reset to the default settings.
- Screen size and sound volume reflect user settings.
- The COLOR DECODING and SIGNAL FORMAT settings are reset to the default values.

● Setting data for Integrator mode

Setting data for Integrator mode will change as follows:

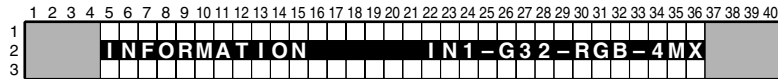
- Although video/audio adjustment data and various data for Integrator mode are stored in memory, they are not reflected on the display.
- Although adjustment data for display in Integrator mode are stored in memory, display adjustment data are reset to the default settings.

■ Functions of the keys on the remote control unit in Service/Factory mode

SR Function	Main Function	Description
MUTING	Switching main items	For shifting to the next (top) main item
▼ (DOWN)	Switching subitems	For shifting to the next (downward) subitem
▲ (UP)	Switching subitems	For shifting to the previous (upward) subitem
◀ (LEFT)	Increasing adjustment value	For increasing adjustment value
▶ (RIGHT)	Decreasing adjustment value	For decreasing adjustment value
SET	Shifting layers	For shifting to lower or upper layer
INPUT *	Switching inputs	For switching the input to *
STANDBY/ON	POWER OFF	For turning off the power
FACTORY	Service/Factory OFF	For setting Service/Factory mode to OFF
MENU	Service/Factory OFF	For setting Service/Factory mode to OFF
POINT ZOOM	Matrix change	RGB → YCBR (Component1) → YPBR (Component2)
SPLIT	Main screen/Sub screen change	MAIN → SUB

Main-item indications

Four parameters are displayed:



1 2 3 4

1 Input function

When there is not a video card

Input Functions	On-Screen Display
IN1, IN2	IN1, IN2

When there is a video card

Input Functions	On-Screen Display
IN1 to IN5	IN1 to IN5

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

When there is not a video card

Color System and Signal Type	On-Screen Display
RGB	RGB
Digital video signal	DIG

When there is a video card

Color System and Signal Type	On-Screen Display
NTSC	NTV/NTS
PAL	PLV/PLS
SECAM	SCV/SCS
4.43NTSC	4NV/4NS
PAL M	PMV/PMS
PAL N	PNV/PNS
BLACK/WHITE	BWV/BWS
Y / Cb / Cr	CBR
Y / Pb / Pr	PBR
RGB	RGB
Digital video signal	DIG

4 Option (Destination, etc.)

Options	On-Screen Display
CMX/MXE	4MX

● SIG-Mode Table

The signal mode is displayed in three characters:

First character: Resolution of the input signal (numerics for the video signals, and alphabetics for the PC signals)

Second character: Grouping of the vertical frequencies

2nd Character	Reference Vertical Frequency	Area	Remarks
–	–	– 20.0	No signal
B		20.0 to 28.0	
C		28.0 to 45.0	
1	50	45.0 to 54.5	
2	56	54.5 to 58.2	
3	60	58.2 to 63.0	
4	66	63.0 to 68.0	
5	70	68.0 to 73.4	
6	For interpolation of 72-Hz	73.4 to 73.9	For distinguishing between 70-Hz or 75-Hz area
7	75	73.9 to 80.0	
8	85	80.0 to 88.5	
?	–	91.5 –	Out of range

Third character: Selection of the screen size by the user is displayed.

(○: available, ×: not available)

3rd Character	Description on GUI	VIDEO	PC
0	DOT BY DOT	×	○
1	4 : 3	○	○
2	FULL (FULL1080i)	○	○
3	ZOOM	○	×
4	WIDE	○	×
6	CINEMA	○	×
8	FULL (FULL1035i)	○	×
9 *	UNDERSCAN	○	×
:	PARTIAL	×	○

* This is displayed only when UNDERSCAN has been set before Service/Factory mode is entered.

In Service/Factory mode, changing from other screen sizes to UNDERSCAN cannot be performed.

● SIG-Mode Table

SIG-Mode table for video signals

SIG-Mode	Signal Type	Vertical Freq. fv (Hz)	Horizontal Freq. fh (kHz)	Dot Clock (MHz)	Remarks
13*	SDTV • 525i	60.000	15.734	13.5	
21*	SDTV • 625i	50.000	15.625	13.5	
33*	SDTV • 525p	60.000	31.469	27.000	
41*	HDTV • 1125i	50.000	28.125	74.250	
43*		60.000	33.750	74.250	
51*	SDTV • 625p	50.000	31.250	27.000	
61*	HDTV • 750p	50.000	37.500	74.250	
63*		60.000	45.000	74.250	
7B*	HDTV • 1125p	25.000	28.125	74.250	Use as OUT OF RANGE
7C*		30.000	33.750	74.250	Use as OUT OF RANGE
71*		50.000	56.250	148.500	
73*		60.000	67.500	148.500	
81*	HDTV • 1250p	50.000	62.500	148.500	
91*	288p	50.000	15.625	27.0/54.0	Use as OUT OF RANGE
93*	288p	60.000	15.750	27.0/54.0	Use as OUT OF RANGE

*: Represents the current screen-size selected.

SIG-Mode table for PC signals

SIG-Mode	Signal Type	Vertical Freq. fv (Hz)	Horizontal Freq. fh (kHz)	Dot Clock (MHz)	Remarks
A2*	640 × 400	56.422	24.825	21.052	Former 720 × 400
A5*	720 × 400	70.087	31.469	28.322	Former 640 × 400
A8*	720 × 400	85.050	37.861	35.438	New
B1*	640 × 480	49.673	24.688	19.750	640 × 480 For rescan (48/50Hz)
B3*		59.940	31.469	25.175	
B4*		66.666	35.000	30.240	
B6*		72.809	37.861	31.500	
B7*		75.000	37.500	31.500	
B8*		85.000	43.300	36.000	
C1*	848 × 480	49.540	24.621	26.000	848 × 480 For rescan (48/50Hz)
C3*		60.000	31.020	33.750	
D2*	800 × 600	56.250	35.158	36.000	
D3*		60.317	37.879	40.000	
D6*		72.188	48.077	50.000	
D7*		75.000	46.875	49.500	
D8*		85.061	53.674	56.250	
E7*	832 × 624	74.550	49.725	57.283	
F1*	1024 × 768	48.003	38.690	52.000	1024 × 768 For rescan (48/50Hz)
F3*		60.004	48.363	65.000	
F5*		70.069	56.476	75.000	
F7*		75.029	60.023	78.750	
F8*		84.997	68.677	94.500	
G1*	1280 × 768	48.014	38.507	65.000	1280 × 768 For rescan (48/50Hz)
G2*		56.250	45.113	76.150	
G3*		59.870	47.776	79.500	
G5*		69.843	56.014	95.000	
H3*	1152 × 864	60.000	53.700	79.369	
H6*		72.000	64.900	99.686	
H7*		75.000	67.500	108.000	
I7*	1152 × 870	75.061	68.681	100.300	
J4*	1152 × 900	65.950	61.800	92.940	
J7*		76.050	71.710	105.561	
K3*	1280 × 960	60.000	60.000	108.000	
L3*	1280 × 1024	60.020	63.981	108.000	
L7*		75.025	79.976	135.000	
L8*		85.024	91.146	157.500	
M3*	1400 × 1050	59.978	65.317	121.750	
M7*	1400 × 1050	74.867	82.278	156.000	
M8*	1400 × 1050	84.960	93.881	(179.500)	
N3*	1600 × 1200	60.000	75.000	162.000	
N4*		65.000	81.250	153.563	
N5*		70.000	87.500	153.563	
N7*		75.000	93.750	151.875	
N8*		85.000	106.250	157.781	
O3*	1280 × 720	59.943	44.718	74.410	

* : Represents the current screen-size selected.

INFORMATION mode

Select the main item "INFORMATION" using the MUTE key then select the subitems shown in the table below using the ▲ or ▼ key.

● Operation items

No.	Function / Display	Content	232C Command
1	VERSION (1)	The flash memory versions for each device are displayed (1)	GS1
2	VERSION (2)	The type of video card inserted in the slot is displayed:	
3	SERIAL	For displaying the serial number of the product	GNP/ GST
4	PANEL PD	Power-down and its time of occurrence are displayed. The values can be cleared.	GPD
5	PANEL SD	Shutdown and its time of occurrence are displayed. The values can be cleared.	GNG
6	TEMPERATURE	Information on temperature is displayed.	GS2/GST
7	HOURLY METER	Cumulative power-on time is displayed. The value can be cleared.	GS2
8	PULSE METER	The pulse meter values at each block are displayed. The values can be cleared.	GPM
9	P ON COUNTER	The number of times the power was turned on is displayed. The value can be cleared.	GPC
10	BACKUP EEPROM	The status of the backup data for the module microcomputer is displayed and updated.	GS2

1. VERSION (1)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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16																																							

The flash memory versions for each device are displayed.

On-Screen Display	Flash memory of Device
I / F	User IF microcomputer
MAIN	Main microcomputer
WID-PRG	Program for IC3, Boot program for IC3
WID-DAT	Extension Engin data for IC3
GUI-PRG	GUI data for IC3
MODULE	Module microcomputer
SEQ-PRG	Program for IC4
SQ-DT-V	Sequence data for IC4 (for VIDEO)
SQ-DT-P	Sequence data for IC4 (for PC)

2. VERSION (2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
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16																																									

The type of video card inserted in the slot is displayed:

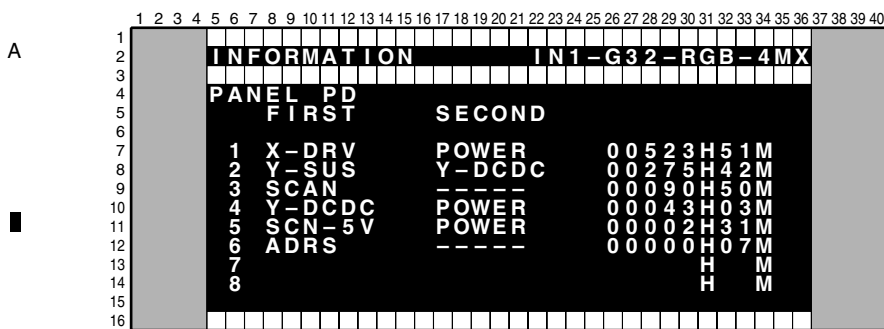
Device	Name Indication	Type of video card	Remarks
SLOT-DET	SLOT-DET	(No indication)	No card inserted
		4G 5003B	When the Pioneer PDA-5003 Standard Video Card is inserted.
		4G 5004R	When the Pioneer PDA-5004 Standard Video Card is inserted.
		3G TYPE *	When a PDP-503CMX-based OEM video card is inserted * = A to H
		4G TYPE *	When a PDP-504CMX-based OEM video card is inserted * = A to J

3. SERIAL

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
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The serial number of the product is displayed.

4. PANEL PD



The log of the past eight power-downs is displayed. Power-down points (first and second) and the hour meter value when the power-down was generated are displayed, with the latest power-down data at the top.

The meanings of indications for power-down points are shown in the table below.

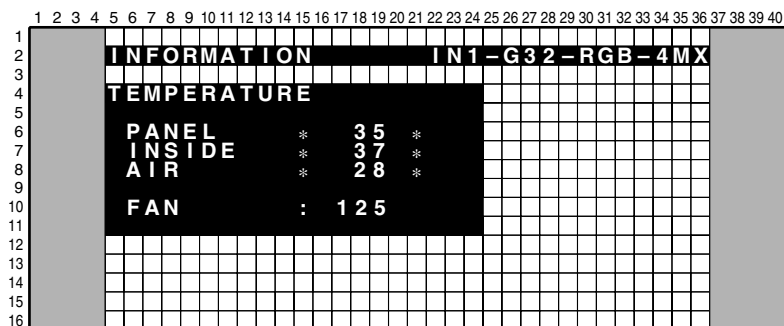
- **Power-down information**

Type of Power-down	On-Screen Display	Type of Power-down	On-Screen Display
No corresponding item	-----	Power-down of the Y-SUS system	Y-SUS
Power-down of the main power supply system	POWER	Power-down of the address system	ADRS
Power-down of the scanning system	SCAN	Power-down of the X-DRIVE circuitry	X-DRV
Power-down in the path between the scanning system and 5-V power supply	SCN-5V	Power-down of the X-DC/DC converter	X-DCDC
Power-down of the Y-Drive system	Y-DRV	Power-down of the X-SUS system	X-SUS
Power-down of the Y-DC/DC converter	Y-DCDC	Power-down of the driving IC power supply system	D-DCDC
PD which cannot be specified	UNKNOWN		

*1: If an activated protection circuit could not be identified after the power-down, it is treated as an unidentifiable power-down (UNKNOWN).

6. TEMPERATURE

A



Data from each temperature sensor and the fan output value are displayed:

- Temperature sensors [°C]

PANEL: Sensor temperature of a panel part (Reference value)

INSIDE: Temperature inside the unit (Reference value)

AIR: Ambient temperature around the unit (Reference value)

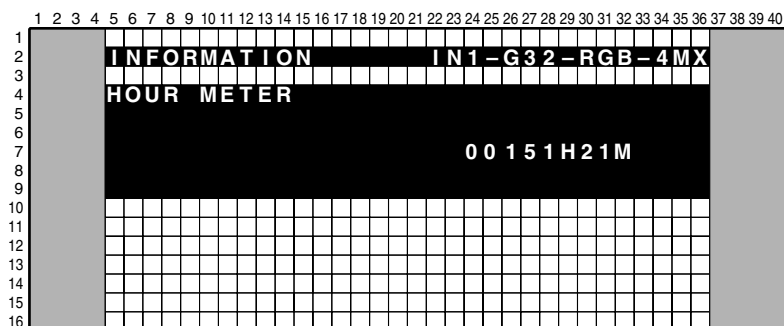
- Fan output: Fan output data

To update the temperature values or fan output data, use the [◀] or [▶] key.

B

7. HOUR METER

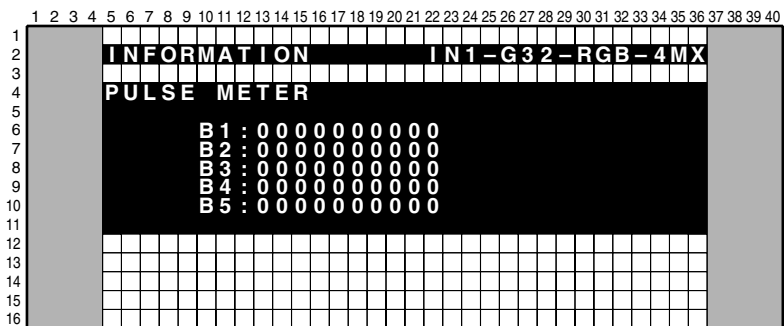
C



The cumulative power-on time is displayed.

8. PULSE METER

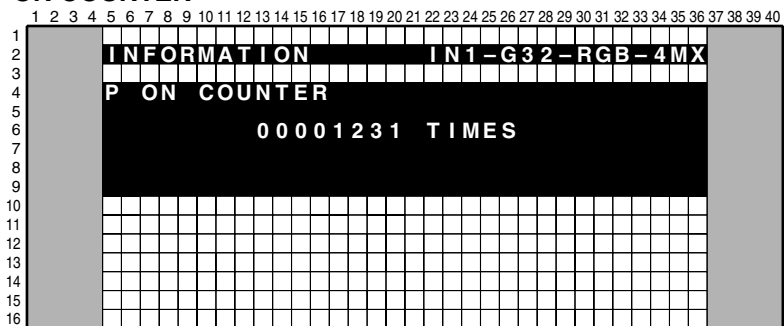
D



The cumulative number of pulses is displayed.

9. P ON COUNTER

E



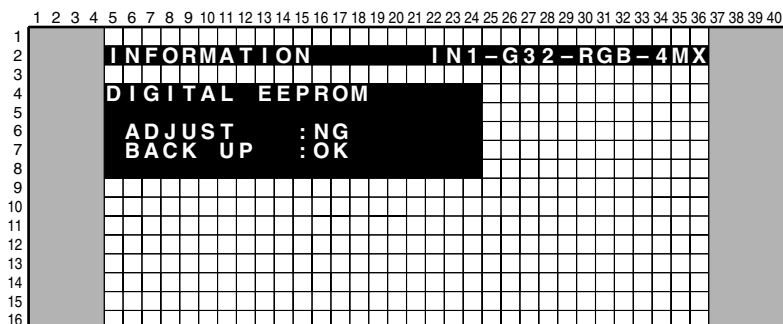
The cumulative number of times the unit was turned on is displayed.

F

10. BACKUP EEPROM

When the DIGITAL VIDEO Assy is to be replaced, the adjustment values in it are temporarily stored in the backup ROM then are written on the new Assy after replacement.

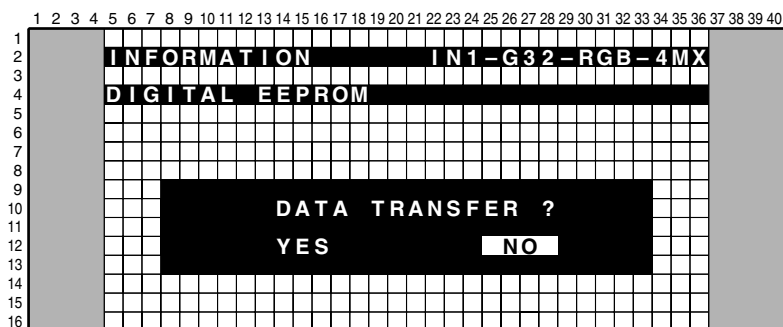
- ① Check if adjustment has been made on the DIGITAL VIDEO Assy or not (i.e., in the state of a new service part), and if the data on any adjustment values are retained in the backup ROM or not.



- ADJUST: OK (DIGITAL VIDEO Assy adjusted)
NG (DIGITAL VIDEO Assy not adjusted)
- BACKUP: OK (Adjustment data retained in the backup ROM)
NG (Adjustment data not retained in the backup ROM)

- ② Downloading the data for the DIGITAL VIDEO Assy from the backup ROM

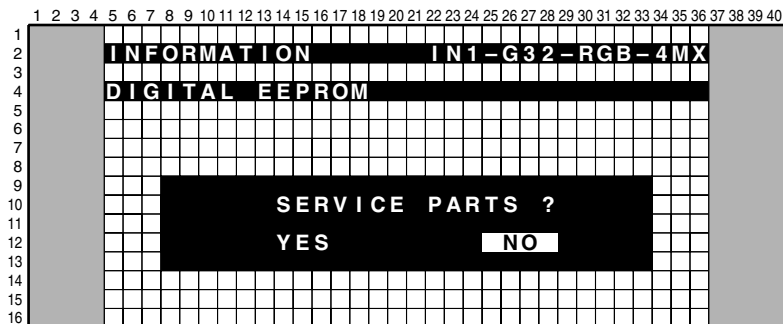
- Press the SET key while display ① above is displayed, and the following display will appear.



- Move the cursor to YES and press the SET key.
The data in the backup ROM are copy to the DIGITAL VIDEO Assy.
(When a new DIGITAL VIDEO Assy has been mounted, it now has the adjustment data suited for the panel.)
- Move the cursor to NO, and press the SET key.
Copy of the data to the DIGITAL VIDEO Assy will not be executed.

- ③ Clearing the data in the ROM of the DIGITAL VIDEO Assy

- When YES or NO is selected while display ② above is displayed, the following display will appear.



- Move the cursor to YES and press the SET key.
The data in the ROM of the DIGITAL VIDEO Assy are cleared, and the Assy has no specific adjustment data.
- Move the cursor to NO and press the SET key. The data in the ROM of the DIGITAL VIDEO Assy are not cleared.
When YES selected on display ② and the data were copy, select NO on this display.

Note: When YES or NO is selected on display ③ above, the display returns to that of ① above.

Adjustment of corresponding route unevenness

Basically, only replacement of service parts is required, and adjustment is not required.

No.	Command	Adjustment Parameter Name in Factory	Function
1	VSG	CVY GAIN	IC1 MAIN GAIN adjustment (switching routes with the SWM [main] and SWS [sub] commands)
2	VSO	CVY OFFSET	IC1 MAIN OFFSET adjustment (switching routes with the SWM [main] and SWS [sub] commands)
3	RYG	RY GAIN	AD R GAIN adjustment (correction in differences between component- and RGB-system signals)
4	GYG	GY GAIN	AD G GAIN adjustment (correction in differences between component- and RGB-system signals)
5	BYG	BY GAIN	AD B GAIN adjustment (correction in differences between component- and RGB-system signals)
6	ADC	AD MAIN GAIN	AD MAIN RGB GAIN adjustment (for main screen)
7	MRG	AD MAIN RY GAIN	AD MAIN RY GAIN adjustment (for main screen)
8	MGG	AD MAIN GY GAIN	AD MAIN GY GAIN adjustment (for main screen)
9	MBG	AD MAIN BY GAIN	AD MAIN BY GAIN adjustment (for main screen)
10	MRO	AD MAIN RY OFS	AD MAIN RY OFFSET adjustment (for main screen)
11	MGO	AD MAIN GY OFS	AD MAIN GY OFFSET adjustment (for main screen)
12	MBO	AD MAIN BY OFS	AD MAIN BY OFFSET adjustment (for main screen)
13	SRG	AD SUB RY GAIN	AD SUB RY GAIN adjustment (for sub screen)
14	SGG	AD SUB GY GAIN	AD SUB GY GAIN adjustment (for sub screen)
15	SBG	AD SUB BY GAIN	AD SUB BY GAIN adjustment (for sub screen)
16	SRO	AD SUB RY OFS	AD SUB RY OFFSET adjustment (for sub screen)
17	SGO	AD SUB GY OFS	AD SUB GY OFFSET adjustment (for sub screen)
18	SBO	AD SUB BY OFS	AD SUB BY OFFSET adjustment (for sub screen)

Reference: Commands for adjustment of differences in signals and memory cells used for storing adjustment values

- Basically no adjustment is required for the Service Assy, as it is properly adjusted before shipment.

Adjustment values to be stored in the EEPROM of the AV I/O (INDIVIDUAL mode)

Adjustment values differ depending on the input function, input signal format, and main/sub screen.

Input and Signal Format	Commands for Adjustment	
	Route for the Main Screen	Route for the Sub Screen
INPUT1 (RGB)	RYG GYG BYG	RYG GYG BYG
INPUT1 (Color difference)	RYG GYG BYG	RYG GYG BYG

- Four adjustment tables are provided here, depending on the input function, input signal format, and main/sub screen.
- No adjustment is required for INPUT 2, which is of DVI (digital video interface) standards.

Adjustment values to be stored in the EEPROM of the PDA-5003 or PDA-5004

Adjustment values differ depending on the input function and main/sub screen.

Input and Signal Format	Commands for Adjustment	
	Route for the Main Screen	Route for the Sub Screen
INPUT3 (Y/C)	VSG VSO	RYG GYG BYG
INPUT4 (Comp. V)	VSG VSO	RYG GYG BYG
INPUT5 (Y/C)	RYG GYG BYG	RYG GYG BYG
INPUT5 (Color difference)	RYG GYG BYG	RYG GYG BYG

- Eight adjustment tables are provided here, depending on the input function and main/sub screen.

Adjustment values to be stored in the EEPROM of the RGB (COMMON mode)

Adjustment values differ depending on the signal resolution, input signal format, and main/sub screen.

Note: No adjustment is required for DVI input or signals converted to digital signals by IC1.

[Main adjustment 1]

Main A/D adjustments for R, G, and B individually (COMMON-RGB mode)

Input and Signal Format	Commands for Adjustment		Conditions for the Tables to be Switched
525i (RGB)	MRG MGG MBG	MRO MGO MBO	Video RGB signals (excl. 1125p signals)
525i (Color difference)	MRG MGG MBG	MRO MGO MBO	Video color-difference signals (excl. 1125p signals)
1080p (RGB)	MRG MGG MBG	MRO MGO MBO	All PC signals and 1125p RGB signals
1080p (Color difference)	MRG MGG MBG	MRO MGO MBO	1125p color-difference signals

- For adjustment according to the above tables, input corresponding signals to INPUT 5 to change the RGB/color-difference signal setting then perform adjustment.
- Four adjustment tables are provided here, depending on the signal resolution, input signal format, and main/sub screen.

[Sub adjustment 1]

Main A/D adjustments for R, G, and B individually (COMMON-RGB 1 mode)

Input and Signal Format	Commands for Adjustment		Conditions for the Tables to be Switched
RGB	SRG SGG SBG	SRO SGO SBO	All R, G, and B signals
Color difference	SRG SGG SBG	SRO SGO SBO	All color-difference signals

- For adjustment according to the above tables, input video signals to INPUT 5 to switch to the route for sub input and to change the RGB/color-difference signal setting then perform adjustment.
- Two adjustment tables are provided here, depending on the signal format.

[Main adjustment 2]

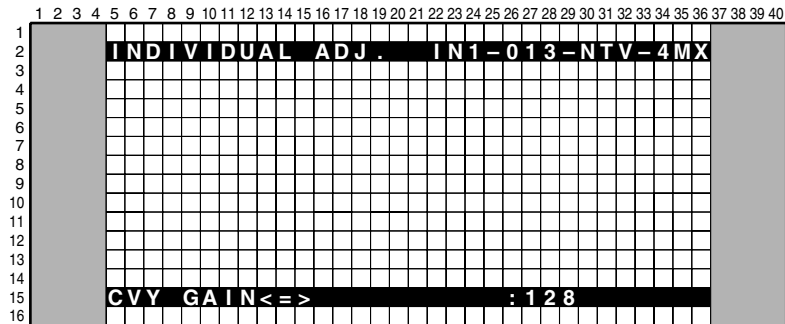
Main A/D adjustments for all R, G, and B simultaneously (COMMON-RGB 2 mode)

Input and Signal Format	Commands for Adjustment	Conditions for the Tables to be Switched
RGB	ADC	All R, G, and B signals
Color difference	ADC	All color-difference signals

- For adjustment according to the above tables, input video signals to INPUT 5 to switch to the route for main input and to change the RGB/color-difference signal setting then perform adjustment.
- A contrast gain commits this adjustment command simultaneously three colors.
- Two adjustment tables are provided here, depending on the signal format.

INDIVIDUAL ADJ. mode

A



B

Each time the ▲ or ▼ key is pressed, the individual adjustment items are changed, as follows:

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	VSG	CVY GAIN<=> : ***	MICHAEL (IC6255) input GAIN adj.	064 to 191	Select a route with the command SWM (main) and the command SWS (sub).
2	VSO	CVY OFFSET<=> : ***	MICHAEL (IC6255) input OFFSET adj.	064 to 191	
3	RYG	RY GAIN<=> : ***	AD (IC6001 or IC6602) R input GAIN adj.	000 to 255	The memory tables for the RGB and component systems are separate, and are switchable with the command MCD.
4	GYG	GY GAIN<=> : ***	AD (IC6001 or IC6602) G input GAIN adj.	000 to 255	
5	BYG	BY GAIN<=> : ***	AD (IC6001 or IC6602) B input GAIN adj.	000 to 255	

"***" in the table above represents the adjustment value.

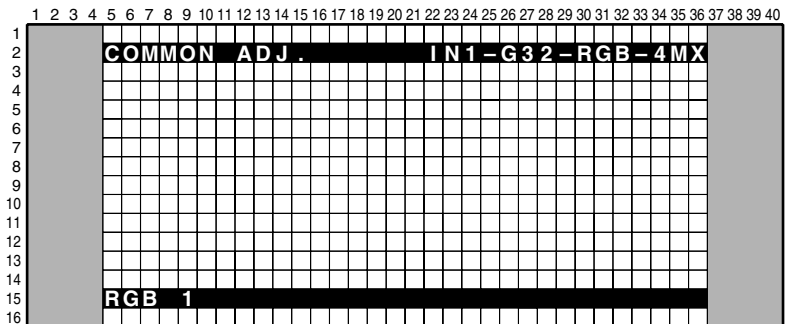
The value of each subitem can be changed using the ◀ or ▶ key.

C

Note: The differences in signals for the main and sublevel screens from the AV/IO Assy are compensated, and the compensation data are stored in the EEPROM (IC8705) for each screen.

COMMON ADJ. mode

D



Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

- RGB1(+) : Adjustment of a video card and the RGB Assy
- RGB2(+) : Adjustment of the RGB Assy
- PANEL1(+) : Adjustment items related to the drive (common to the unit)
- PANEL2(+) : Adjustment items related to the drive (dependent on signals)

Each time the SET key is pressed, items grouped under the subitem are selected one by one.

F

1. COMMON-RGB1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

When the main input is selected

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	MRG	AD MAIN R GAIN <=> : ***	AD (IC6001) MAIN R GAIN adj. (for main screen)	000 to 255	
2	MGG	AD MAIN G GAIN <=> : ***	AD (IC6001) MAIN G GAIN adj. (for main screen)	000 to 255	
3	MBG	AD MAIN B GAIN <=> : ***	AD (IC6001) MAIN B GAIN adj. (for main screen)	000 to 255	
4	MRO	AD MAIN R OFFSET <=> : ***	AD (IC6001) MAIN R OFFSET adj. (for main screen)	000 to 255	
5	MGO	AD MAIN G OFFSET <=> : ***	AD (IC6001) MAIN G OFFSET adj. (for main screen)	000 to 255	
6	MBO	AD MAIN B OFFSET <=> : ***	AD (IC6001) MAIN B OFFSET adj. (for main screen)	000 to 255	

When the sub input is selected

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	SRG	AD SUB R GAIN <=> : ***	AD (IC6602) SUB R GAIN adj. (for sub screen)	000 to 255	
2	SGG	AD SUB G GAIN <=> : ***	AD (IC6602) SUB G GAIN adj. (for sub screen)	000 to 255	
3	SBG	AD SUB B GAIN <=> : ***	AD (IC6602) SUB B GAIN adj. (for sub screen)	000 to 255	
4	SRO	AD SUB R OFFSET <=> : ***	AD (IC6602) SUB R OFFSET adj. (for sub screen)	064 to 191	
5	SGO	AD SUB G OFFSET <=> : ***	AD (IC6602) SUB G OFFSET adj. (for sub screen)	064 to 191	
6	SBO	AD SUB B OFFSET <=> : ***	AD (IC6602) SUB B OFFSET adj. (for sub screen)	064 to 191	

"***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

Note: The differences in signals for the main and sublevel screens from the RGB Assy are compensated, and the compensation data are stored in the EEPROM (IC7205) for each screen.

2. COMMON-RGB 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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No.	Corresponding 232C Command	Function/Display	Content	Adjustable range	Remarks
1	ADC	AD MAIN CONTRAST<=> : ***	AD (IC6001) MAIN RGB GAIN adj. (for main screen)	000 to 255	

"***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

3. COMMON-PANEL1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
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Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range
1	XU1	X-SUS U1 <=> : ***	Adjustment of X-SUS leading edge pulse U1	124 to 132
2	XU2	X-SUS U2 <=> : ***	Adjustment of X-SUS leading edge pulse U2	124 to 132
3	XD1	X-SUS D1 <=> : ***	Adjustment of X-SUS trailing edge pulse D1	124 to 132
4	XD2	X-SUS D2 <=> : ***	Adjustment of X-SUS trailing edge pulse D2	124 to 132
5	YU1	Y-SUS U1 <=> : ***	Adjustment of Y-SUS leading edge pulse U1	124 to 132
6	YU2	Y-SUS U2 <=> : ***	Adjustment of Y-SUS leading edge pulse U2	124 to 132
7	YD1	Y-SUS D1 <=> : ***	Adjustment of Y-SUS trailing edge pulse D1	124 to 132
8	YD2	Y-SUS D2 <=> : ***	Adjustment of Y-SUS trailing edge pulse D2	124 to 132
9	YD3	Y-SUS D3 <=> : ***	Adjustment of X-SUS trailing edge pulse D3	124 to 132
10	YD4	Y-SUS D4 <=> : ***	Adjustment of X-SUS trailing edge pulse D4	124 to 132
11	VSU	VLT-SUS <=> : ***	SUS voltage adjustment	000 to 255
12	VOF	VLT-OFS <=> : ***	OFFSET voltage adjustment	000 to 255

"***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

Notes:

- Adjustments No. 1 to No. 10 above are not normally required, unless so instructed by Service Information, etc.
- Readjustment of values for No. 11 [VSU] and No. 12 [VOF] are required when the service panel is replaced.

4. COMMON-PANEL2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range
1	PRH	PANEL R HIGH <=> : *** (PTO)	Panel W/B R-HIGH adjustment	000 to 511
2	PGH	PANEL G HIGH <=> : *** (PTO)	Panel W/B G-HIGH adjustment	000 to 511
3	PBH	PANEL B HIGH <=> : *** (PTO)	Panel W/B B-HIGH adjustment	000 to 511
4	PRL	PANEL R LOW <=> : *** (PTO)	Panel W/B R-LOW adjustment	000 to 999
5	PGL	PANEL G LOW <=> : *** (PTO)	Panel W/B G-LOW adjustment	000 to 999
6	PBL	PANEL B LOW <=> : *** (PTO)	Panel W/B B-LOW adjustment	000 to 999
7	ABL	ABL LEVEL <=> : *** (ABx)	Power consumption adjustment	000 to 999

"***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

White balance adjustment.(From No.1 to No.6). (Refer to 116 pages of the "[W/B-adjustment procedurs]")

Notes: Adjustments No. 7: [ABL] above are not normally required, unless so instructed by Service Information, etc.

"(PTO)" and "(ABx)" in the table above represent the following:

Indication	Table
PT1	For PC and NTSC
PT2	For PAL, For PC (48Hz)

Indication	Table
AB1	For 60Hz and 75Hz video
AB2	For 50Hz video, For 48Hz PC
AB3	For PC

OPTION mode

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Select the main item "OPTION" using the MUTE key then select the subitems shown in the table below using the ▲ or ▼ key.

No.	Function/Display	Content	Remarks
1	PATTERN MASK (+)	For selecting Pattern mask of IC4	A lower layer exists.
2	FULL MASK (+)	For selecting raster mask of IC4	A lower layer exists.
3	DYNAMIC RANGE	ON ⇄ OFF	The last setting is not stored in memory (initial setting: ON).
4	EDID WRITE MODE	DISABLE ⇄ ENABLE	The last setting is not stored in memory (initial setting: DISABLE).
5	INTEGRATOR MODE	DISABLE ⇄ ENABLE	Initial setting: ENABLE

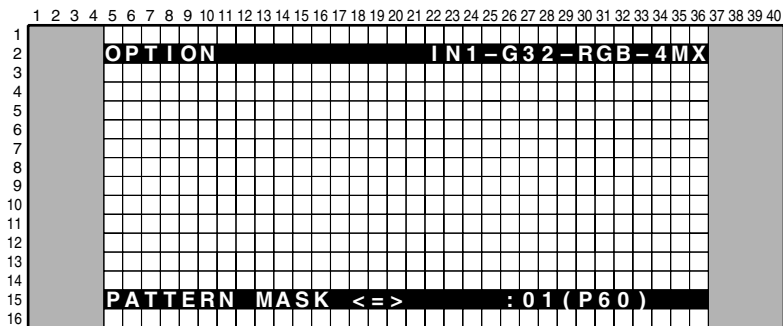
Note:

- For PATTERN MASK (+) and FULL MASK (+), press the SET key to switch to the lower layer.
- Adjustments No. 3 to 5 above are not required for servicing.

1. PATTERN MASK

2. FULL MASK

A



B

To select the mask frequency, use the ◀ or ▶ key.

To select the mask pattern, use the ▲ or ▼ key.

Mask Frequency

No.	Corresponding RS-232C Command	Function/ Display	Content
1	F48	V48	Video 48-Hz sequence
2	F50	V50	Video 50-Hz sequence
3	F60	V60 (initial value)	Video 60-Hz sequence
4	F61	P60	PC 60-Hz sequence
5	F70	P70	PC 70-Hz sequence
6	F72	V72	Video 72-Hz sequence
7	F75	V75	Video 75-Hz sequence

C

Pattern Mask

No.	Corresponding RS-232C Command	Function/ Display	Content
1	M00	OFF	Mask mode: OFF
2	M01	01	White 0 to 100%
3	M02	02	Aging mask
4	M03	03	Aging mask (detection of still picture: OFF)
5	M10	10	H RAMP1
6	M11	11	H RAMP2
7	M12	12	H RAMP3
8	M13	13	H RAMP4
9	M14	14	V RAMP
10	M15	15	H/V RAMP
11	M20	20	Window0
12	M21	21	Window1
13	M22	22	Window2
14	M23	23	Window3
15	M24	24	Window4
16	M25	25	Window5
17	M26	26	Window6
18	M27	27	Window7
19	M28	28	Window8
20	M29	29	Window9
21	M2E	2E	Wiper for erasing afterimage
22	M30	30	COLOR BAR
23	M31	31	Slanted lines

D

E

F

Full Mask

No.	Corresponding RS-232C Command	Function/ Display	Content
1	M00	OFF	Mask mode: OFF
2	M51	51	Raster – White
3	M52	52	Raster – Red
4	M53	53	Raster – Green
5	M54	54	Raster – Blue
6	M55	55	Raster – Black
7	M56	56	Raster – Cyan
8	M57	57	Raster – Mazenta
9	M58	58	Raster – Yellow
10	M59	59	Raster – Cyan 274
11	M60	60	Raster – 50 fresh color
12	M61	61	Raster – 50 purple
13	M62	62	Raster – 50 sky blue
14	M63	63	Raster – Red 779
15	M64	64	Raster – Cyan 218
16	M65	65	Raster – Cyan 448
17	M66	66	Raster – 43 fresh color
18	M67	67	Raster – Red 640
19	M68	68	Raster – Mazenta 98
20	M69	69	Raster – 43 sky blue 1
21	M70	70	Raster – 43 sky blue 2
22	M71	71	Raster – 43 purple
23	M72	72	Raster – Blue 960
24	M73	73	Raster – Yellow 512
25	M74	74	Raster – Gray 512

3. DYNAMIC RANGE

The setting can be changed using the ◀ or ▶ key.

No.	Corresponding RS-232C Command	Function/ Display	Content
1	DYY	ON	DYNAMIC RANGE correction: ON (initial setting)
2	DYN	OFF	DYNAMIC RANGE correction: OFF

4. EDID WRITE MODE

The setting can be changed using the ◀ or ▶ key.

No.	Corresponding RS-232C Command	Function/ Display	Content
1	EWN	DISABLE	Prohibiting writing EDID data (initial setting)
2	EWY	ENABLE	Enabling writing EDID data

5. INTEGRATOR MODE

The setting can be changed using the ◀ or ▶ key.

No.	Corresponding RS-232C Command	Function/Display	Content
1	—	ENABLE	Permitting INTEGRATOR MODE (initial setting)
2	—	DISABLE	Prohibiting INTEGRATOR MODE

INITIALIZE mode

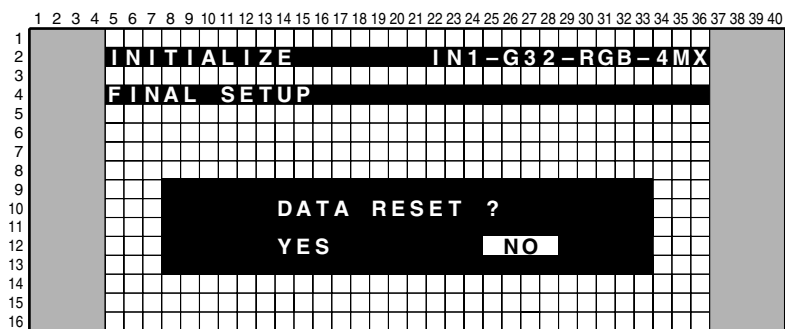
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
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The subitems can be changed using the ▲ or ▼ key.

No.	Corresponding RS-232C Command	Function/Display	Content
1	—	SYNC DET (+)	(Not used)
2	—	DRIVE MODE (+)	(Not used)
3	—	SIDE MASK LEVEL (+)	(Not used)
4	—	PANEL REVICE (+)	(Not used)
5	FST	FINAL SETUP	For initializing user's settings and some factory settings
6	—	C TEMP LOW (+)	For adjusting the user's C TEMP MODE item selected
7	—	C TEMP MID LOW (+)	
8	—	C TEMP STD (+)	
9	—	C TEMP MID HIGH (+)	
10	—	C TEMP HIGH (+)	(Not used)
11	—	C TEMP MODE2 (+)	
12	—	SLOT PROTECT<=>	
			For setting permission/prohibition of SLOT

Note: Any item followed by (+) has a lower layer to which you can switch using the SET key.

1. FINAL SETUP



Select YES or NO using the ◀ or ▶ key then press the SET key for finalizing the selection:

YES : For executing FINAL SETUP

NO : For not executing FINAL SETUP

In FINAL SETUP, the following items can be initialized:

	Item (operation)	Factory setting	Remarks
Normal	Input function (main)	INPUT1	
	Input function (sub)	INPUT2	
	Screen size	VIDEO WIDE or FULL PC DOT BY DOT or FULL or 4:3 or PARTIAL	The screen-size setting will be one of the factory-preset values, based on the results of signal-type detection (SIG-MODE).
	Volume	0	
	Multi screen	OFF	
	FUNCTIONAL LOCK	LOCK OFF	
Menu setting	PICTURE	Default setting for all adjustment items	For each input function
	SCREEN	Default setting for all adjustment items	For each input function
	POWER MANAGEMENT	OFF	For each input function
	AUTO POWER OFF	DISABLE	For each input function
	COLOR TEMP.	MIDDLE	For each input function
	DNR	MIDDLE	For each input function
	MPEG NR	LOW	For each input function
	CTI	ON	For each input function
	PURECINEMA	OFF	For each input function
	COLOR DECODING	COMPONENT 1 or COMPONENT 2	One of the factory-preset signals is output, based on the results of signal-type detection (SIG-MODE) for the input function.
	CLAMP POSITION	AUTO	For each input function
	COLOR SYSTEM	AUTO	For each input function
	SIGNAL FORMAT	VGA or XGA or SXGA or 720-PC *	One of the factory-preset signals is output, based on the results of signal-type detection (SIG-MODE) for the input function.
	LANGUAGE	ENGLISH	
	ENERGY SAVE	STANDARD	
	SCREEN MGT.	OFF/ 01H00M	
	ORBITER	OFF	
	MASK CONTROL	ON	
	AUTO SET UP MODE	INACTIVE	
	AUTO FUNCTION	OFF	
	AUDIO OUT	FIXED	

* 720-PC selectable only with video card is inserted

A

	Item (operation)	Factory setting	Remarks
Integrator menu setting	PICTURE	Default setting for all adjustment items	For each input function
	WHITE BAL.	Default setting for all adjustment items	For each input function
	SCREEN	Default setting for all adjustment items	For each input function
	GRADATION	VIDEO DRE MID PC GAMMA 2.0	The screen-size setting will be one of the factory-preset values, based on the results of signal-type detection (SIG-MODE).
	BRT. ENHANCE	OFF	For each input function
	SUB VOLUME	20	For each input function
	SCREEN MGT. SET	00H10M/00H30M/WHITE/ 00H10M/INV.1/1	
	SCREEN MASK	OFF	
	SIDE MASK	NORMAL/80/80/80	
	2x2 MODE	OFF/UP LEFT/NORMAL	
	MIRROR MODE	OFF	
	BAUD RATE	9600BPS	
	ID NO. SET	--	
	OSD	ON	
	FRONT INDICATOR	ON	
	FAN CONTROL	AUTO	
	COLOR MODE	NORMAL	
	PRO USE	OFF/OFF/DISABLE/ MOTION	
Factory	FRC	MODE1	
	PATTERN MASK	OFF	
	FULL MASK	OFF	
232C	EDIT WRITE MODE	DISABLE	
	LOUDNESS	OFF	

D

E

F

6.4 COMMAND DESCRIPTION

About GET Command

● Operation description of GET command

■ Conditions under which GET commands are enabled

Most of the GET commands are enabled at any time, regardless of unit's being on/off or in Factory or Normal mode. However, some GET commands must be issued while the power is on to acquire correct data.

[Operations]

- Reading out and sending various data stored in the EEPROMs and the RAMs of microcomputers
- Adding a received string of command characters at the beginning of reply data as an echoback
- Decimal notation are converted into ASCII numerics and transmitted.
- "CS" represents an ASCII code consisting of two hexadecimal alphanumeric, and the sum of CS +transmission data(excl. STX and ETX) must be 0.

■ Reply data format

STX	Received command (3byte)	Transmission data	...	Transmission data	CS (2byte)	ETX
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Example: [02] GAS 2 ... 0 97 [03]

GST: GET STATUS

Order	Data	Size	Remarks
1	Display data	3 byte	See the table below.
2	Power data	3 byte	See the table below. (The third character is for the subinput.)
3	Input function data (main)	3 byte	Input data during GST reception (INPUTs 1 to 5 are indicated as IN 1-5.)
4	Input function data (sub)	3 byte	Subinput data during GST reception (INPUTs 1 to 5 are indicated as IS 1-5.)
5	Screen size data	1 byte	See the table below.
6	Two-screen indication	1 byte	0: OFF (Full-screen) 1: 2-SCREEN 2: PinP (Lower right) 3: PinP (Upper right) 4: PinP (Upper left) 5: PinP (Lower left) 6: PoutP
7	FUNCTIONAL LOCK data	1 byte	0: LOCK OFF 1: BUTTONS LOCK 2: IR LOCK 3: IR&BUTTONS LOCK 4: MEMORY LOCK
8	Dummy data	3 byte	(Three-digit figure)
9	Temperature data 2 (TEMP2)	3 byte	°C (*)
10	Temperature data 3 (TEMP3)	3 byte	°C (*)
11	Serial	15 byte	
12	Dummy data	3 byte	(Three-digit figure)
13	Dummy data	3 byte	
14	HOUR METER data	5 byte	Indicated in hours
15	Dummy data	2 byte	(Checksum)

Display data	1st character 2nd character 3rd character	Data on generation: 4 (Fixation) Data on screen size: 4 (43 inches), 5 (50 inches) Data on destination: M (Fixation)
Power data	1st character 2nd character 3rd character	Power status and signal status PN (power on & at usually, of signal Input), PL (power on & no input), PO (power on & out of range signal Input), SN (stand by/ on), SW (power management standby), SS (SD and PD standby), Multi screen features. The sub signal state of a input (see Note. 2) N (at usually, of signal Input), L(no Input), O (out of range in signal Input)
Screen size data	1st character	Numbers used are the same as those that indicate SIG-MODE screen sizes. 0: Dot by Dot PARTIAL, 1: 4:3, 2: FULL or FULL1080i, 3: ZOOM, 4: WIDE, 6: CINEMA, 8: FULL1035i, 9: UNDERSCAN

Not.1: During Standby or immediately after the power is turned on, accurate temperature data cannot be obtained.

To obtain an accurate temperature reading, wait for a few minutes after the power is turned on.

Not.2: During Standby or full-screen display, dummy data (symbols) are output.

Not.3: During Standby or full-screen display, values stored in memory of the unit are output.

GS1: Returning information on the model and the version of the software

Order	Data	Size
1	Data on the display	3 byte
2	Version of the module microcomputer	4 byte
3	Version of the IC4-MANTA	4 byte
4	Sequence version (50VIDEO)	4 byte
5	Sequence version (50PC)	4 byte
6	Sequence version (43VIDEO)	4 byte
7	Sequence version (43PC)	4 byte
8	Version of the IF microcomputer	4 byte
9	Version of the main microcomputer	4 byte
10	Version of the IC3-MANTA	4 byte
11	Version of the OSD	4 byte
12	Dummy	12 byte

Breakdown of the data on the display

Data	Model
MX5	PDP-504CMX series
MX4	PDP-434CMX series

GPW: RGB-level-related adjustment values of the panel system

Order	Data	Size
1	Panel W/B table currently used	3 byte
2	Main contrast	4 byte
3	Red high light of the W/B adjustment value	4 byte
4	Green high light of the W/B adjustment value	4 byte
5	Blue high light of the W/B adjustment value	4 byte
6	Main brightness	4 byte
7	Red low light of the W/B adjustment value	4 byte
8	Green low light of the W/B adjustment value	4 byte
9	Blue low light of the W/B adjustment value	4 byte

Data	Table
PT1	WB table for NTSC
PT2	WB table for PAL
PT3	Reserved table

GPD: Power-down information

Order	Data	Size	Order	Data	Size
1	Latest "1st PD" data	1 byte	17	Fifth latest "1st PD" data	1 byte
2	Latest "2nd PD" data	1 byte	18	Fifth latest "2nd PD" data	1 byte
3	Data of hour meter for the latest PD	7 byte	19	Data of hour meter for the fifth latest PD	7 byte
4	Data on temperature for the latest PD (TEMP1)	3 byte	20	Data on temperature for the fifth latest PD (TEMP1)	3 byte
5	Second latest "1st PD" data	1 byte	21	Sixth latest "1st PD" data	1 byte
6	Second latest "2nd PD" data	1 byte	22	Sixth latest "2nd PD" data	1 byte
7	Data of hour meter for the second latest PD	7 byte	23	Data of hour meter for the sixth latest PD	7 byte
8	Data on temperature for the second latest PD (TEMP1)	3 byte	24	Data on temperature for the sixth latest PD (TEMP1)	3 byte
9	Third latest "1st PD" data	1 byte	25	Seventh latest "1st PD" data	1 byte
10	Third latest "2nd PD" data	1 byte	26	Seventh latest "2nd PD" data	1 byte
11	Data of hour meter for the third latest PD	7 byte	27	Data of hour meter for the seventh latest PD	7 byte
12	Data on temperature for the third latest PD (TEMP1)	3 byte	28	Data on temperature for the seventh latest PD (TEMP1)	3 byte
13	Fourth latest "1st PD" data	1 byte	29	Eighth latest "1st PD" data	1 byte
14	Fourth latest "2nd PD" data	1 byte	30	Eighth latest "2nd PD" data	1 byte
15	Data of hour meter for the fourth latest PD	7 byte	31	Data of hour meter for the eighth latest PD	7 byte
16	Data on temperature for the fourth latest PD (TEMP1)	3 byte	32	Data on temperature for the eighth latest PD (TEMP1)	3 byte

Hour meter data; 1 to 5 byte: time, 6 to 7 byte: minute

• Details on "1st/2nd PD" data

Data	Power-down Point
0	No power-down
1	Not used (for MR-POWER)
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D, E	Spare
F	Power-down point not identified

GNG: NG history

Order	Data	Size	Order	Data	Size
1	Latest SD data	1 byte	17	Fifth latest SD data	1 byte
2	Data of subcategory for the latest SD	1 byte	18	Data of subcategory for the fifth latest SD	1 byte
3	Data of hour meter for the latest SD	7 byte	19	Data of hour meter for the fifth latest SD	7 byte
4	Data on temperature for the latest SD	3 byte	20	Data on temperature for the fifth latest SD	3 byte
5	Second latest SD data	1 byte	21	Sixth latest SD data	1 byte
6	Data of subcategory for the second latest SD	1 byte	22	Data of subcategory for the sixth latest SD	1 byte
7	Data of hour meter for the second latest SD	7 byte	23	Data of hour meter for the sixth latest SD	7 byte
8	Data on temperature for the second latest SD	3 byte	24	Data on temperature for the sixth latest SD	3 byte
9	Third latest SD data	1 byte	25	Seventh latest SD data	1 byte
10	Data of subcategory for the third latest SD	1 byte	26	Data of subcategory for the seventh latest SD	1 byte
11	Data of hour meter for the third latest SD	7 byte	27	Data of hour meter for the seventh latest SD	7 byte
12	Data on temperature for the third latest SD	3 byte	28	Data on temperature for the seventh latest SD	3 byte
13	Fourth latest SD data	1 byte	29	Eighth latest SD data	1 byte
14	Data of subcategory for the fourth latest SD	1 byte	30	Data of subcategory for the eighth latest SD	1 byte
15	Data of hour meter for the fourth latest SD	7 byte	31	Data of hour meter for the eighth latest SD	7 byte
16	Data on temperature for the fourth latest SD	3 byte	32	Data on temperature for the eighth latest SD	3 byte

Hour meter data; 1 to 5 byte: time, 6 to 7 byte: minute

• Details on the SD data

Data	Cause of Shutdown
0	No abnormality
1	IC4
2	Module microcomputer IIC
3	Abnormality in DIG-RST2 (power decrease of ASIC)
4	Panel having abnormally high temperature
5	Audio failure (short-circuiting of the speakers)
6	Communication failure of the module microcomputer
7	Three-wire serial communication failure of the main microcomputer
8	IIC communication failure of the main microcomputer
9	Communication failure of the main microcomputer
A	Fan stopped
B	Temperature abnormality
D	Abnormality in MAIN-RST2
F	Others

• Data on the subcategories for the module microcomputer IIC

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (4k)
2	EEPROM (2k)

• Data on the subcategories for failure in 3-wire serial communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	Communication failure of the IF microcomputer
2	IC2 communication failure
3	IC3 communication failure

• Data on the subcategories for failure in IIC communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (128k)
2	GCR
3	IC1 main
4	IC1 sub
5	AD-PLL main
6	AD-PLL sub
7	IC6
8	HDMI1
9	HDMI2
A	7.3VIDEO SW
B	6.2RGB SW
C	Front end 1
D	Front end 2
E	C.C. UCOM/TELETEXT UCOM
F	EEPROM (SLOT)
G	Not used
H	EDID ROM
N	IC6/2 (CMX)

• Subcategory data on abnormal temperature

Data	Cause of Shutdown
2	Temperature inside the unit (INSIDE)
3	Ambient temperature (AIR)

• Subcategory data on other failures

Data	Cause of Shutdown
1	Optical sensor (RLS)
2	Power monitor 1 (VCC-D1)
3	Power monitor 1 (VCC-D2)

GS2: Status information

Order	Data	Size	Remarks
1	Notifying of switching to Standby mode	1 byte	1: Successfully switched to Standby mode
2	Whether the unit has already been adjusted or not	1 byte	0: Adjusted, 1: Not adjusted
3	With/without backup of adjustment data	1 byte	0: With backup, 1: Without backup
4	Power-down information	2 byte	1st byte: 1st PD, 2nd byte: 2nd PD
5	Temperature information (TEMP1)	3 byte	000 to 255
6	Abnormality in RST2 (power decrease of the DC-DC converter)	1 byte	0: Normal, 1: Shutdown process caused by an abnormality completed, 2: In the process of displaying a warning against shutdown caused by an abnormality
7	IC4 communication failure	1 byte	
8	EEPROM communication failure	1 byte	
9	Failure in audio	1 byte	
10	Communication failure of the volume IC	1 byte	
11	Backup-ROM communication failure	1 byte	
12	Failure in temperature information (TEMP1)	1 byte	0: Panel protection not activated, 1: Panel protection being activated
13	Activation of panel protection	1 byte	
14	(Reservation)	9 byte	*****
15	Hour meter	7 byte	1st-5th bytes: Hour, 6-7th bytes: Minute

• Power-down information

Data	Power-down point
0	No power-down
1	Not used
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	Reservation
E	Reservation
F	Power-down point not identified

GPM: Value of the pulse meter

Order	Data	Size
1	Pulse meter (Block area 1)	10 byte
2	Pulse meter (Block area 2)	10 byte
3	Pulse meter (Block area 3)	10 byte
4	Pulse meter (Block area 4)	10 byte
5	Pulse meter (Block area 5)	10 byte

Note:

The number of electric discharges at each block is displayed. The first digit represents the number of tens of thousands.

[Location of the block areas from which values from the pulse meter are obtained]

Block ①															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
Block ②															
Block ③															
Block ④															
Block ⑤															

GPC: Number of times the power was turned on

Order	Data	Size
1	Power-on counter	8 byte

GAJ: Drive-related adjustment values

Order	Data	Size
1	ABL table currently used	3 byte
2	Upper limit of the power	3 byte
3	Vsus adjustment value	3 byte
4	Vofs adjustment value	3 byte
5	X-SUS-U1 adjustment value (XU1)	3 byte
6	X-SUS-U2 adjustment value (XU2)	3 byte
7	X-SUS-D2 adjustment value (XD2)	3 byte
8	X-SUS-D1 adjustment value (XD1)	3 byte
9	Y-SUS-U1 adjustment value (YU1)	3 byte
10	Y-SUS-U2 adjustment value (YU2)	3 byte
11	Y-SUS-D1-2 adjustment value (YD2)	3 byte
12	Y-SUS-D1-1 adjustment value (YD1)	3 byte
13	Y-SUS-D2-2 adjustment value (YD4)	3 byte
14	Y-SUS-D2-1 adjustment value (YD3)	3 byte

Data	Table
AB1	ABL table for NTSC
AB2	ABL table for PAL, ABL table for PC (48Hz)
AB3	ABL table for PC

LIST OF RS-232C COMMAND

Command	Operation	Validity of Direct Numeric Input	Lower limit	Upper limit	Remarks
[A]					
ABL	Adjusting power consumption	○	000	255	
ADC	AD CONTRAST adjustment	○	000	255	
AMN	Audio MUTE OFF				
AMY	Audio MUTE ON				
AST	Execution of auto setup				The values for positions are not stored in memory in Factory mode.
[B]					
BCP	Transmitting the backup data to the DIGITAL VIDEO Assy				
BRA	Indicate a current baudrate				
BRAS01	Setting the UART to 232C (1200 bps)				
BRAS02	Setting the UART to 232C (2400 bps)				
BRAS03	Setting the UART to 232C (4800 bps)				
BRAS04	Setting the UART to 232C (9600 bps)				
BRAS05	Setting the UART to 232C (19200 bps)				
BRAS06	Setting the UART to 232C (38400 bps)				
BYG	Adjusting BY GAIN	○	000	255	
[C]					
CNG	MR NG INFORMATION CLEAR				
CPC	Clearing the power-on counter				
CPD	Clearing power-down information				
[D]					
DIN	Turning off the on-screen display				Prohibit OSD indication
DIY	Turning on the on-screen display				While the DIY command is in force, the duration of OSD is unlimited.
DOF	Erasing the currently displayed indications				If another command is received, an OSD is displayed.
DRF	Turning off the power for the drive system				Return to the DRN state by turning the power off
DRN	Turning on the power for the drive system				
DW0	Decreasing the adjustment value by 10				
DWn	Decreasing the adjustment value by n (n=1 to 9)				
DWF	Minimizing the adjustment value				
DYN	No D-range correction				
DYY	With D-range correction				
[E]					
EWN	Prohibiting writing of EDID data				
EWY	Permitting writing of EDID data				
[F]					
F48	Video 48-Hz sequence				
F50	Video 50-Hz sequence				
F60	Video 60-Hz sequence				
F61	PC 60-Hz sequence				
F70	PC 70-Hz sequence				
F72	Video 72-Hz sequence				
F75	Video 75-Hz sequence				
FAJ	Determining the adjustment flag of the DIGITAL VIDEO Assy in "adjustment is completed"				
FAN	Turning Service Factory mode off				The OSD equivalent to that usually displayed when the power is turned on is displayed.
FAY	Turning Service Factory mode on				
FCA	Turning fan roll control to auto				
FCM	Maximizing the fan roll control				
FST	Executing FINAL SETUP				
FXO	Selecting audio output fixing				
[G]					
GAJ	Obtaining the adjustment values for the panel				
GMM	Switching the gamma	○	000	007	
GNG	Obtaining the shutdown information				

Command	Operation	Validity of Direct Numeric Input	Lower limit	Upper limit	Remarks
GNP	Obtaining the serial no.				
GPC	Obtaining the P ON COUNTER value				
GPD	Obtaining power-down information				
GPM	Obtaining the PULSE METER data				
GPP	Obtaining the PD polling log				
GPW	Obtaining the PANEL W/B data				
GS1	Obtaining the version data for each device				
GS2	Obtaining the temperature data and unit state				Data of module microcomputer system
GS4	Obtaining Factory information				
GST	Obtaining the temperature data and unit state				Data of main microcomputer system
GYG	FY GAIN	○	000	255	
[H]					
HMD	Indicating the hour meter				
[I]					
IDC	Clearing the ID				
IDS	Setting the ID	○	(00)	(FF)	
IN1	Switching the main screen to Input 1				
IN2	Switching the main screen to Input 2				
IN3	Switching the main screen to Input 3				
IN4	Switching the main screen to Input 4				
IN5	Switching the main screen to Input 5				
INP	Indicating the input function of current main screen				
INPS01	Switching the main screen to Input 1				
INPS02	Switching the main screen to Input 2				
INPS03	Switching the main screen to Input 3				
INPS04	Switching the main screen to Input 4				
INPS05	Switching the main screen to Input 5				
[L]					
LNN	Prohibiting LOUDNESS				
LNy	Permitting LOUDNESS				
[M]					
M00	Mask mode: OFF				
M01	White: 0 to 100%				
M02	Aging mask				
M03	Aging mask (detection of still picture: OFF)				
M10	RAMP slant 1				
M11	RAMP slant 4				
M12	RAMP slant 1 shifting				
M13	RAMP slant 4 shifting				
M14	V RAMP				
M15	H/V RAMP				
M20	WINDOW-Low: 102 / High: 870				
M21	WINDOW-Low: 102 / High: 1023				
M22	WINDOW-Low: 0 / High: 1023				
M23	WINDOW-High: 1023 (CENTER)				
M24	WINDOW-PEAK WINDOW				
M25	WINDOW-1/7 vertical window				
M26	WINDOW-magenta/green stripe				
M27	WINDOW-green/magenta stripe				
M28	Window (black & white [1 x 8], checkered pattern [for EMG check])				
M29	Window (for W/B adjustment, magenta, yellow)				
M2E	Wiper to prevent phosphor burn				
M2F	Warning mask of cable disconnection (Red and green light alternately)				
M30	COLOR BAR				
M31	Slanted lines				
M51	Raster-white				

A

Command	Operation	Validity of Direct Numeric Input	Lower limit	Upper limit	Remarks
M52	Raster-red				
M53	Raster-green				
M54	Raster-blue				
M55	Raster-black				
M56	Raster-cyan				
M57	Raster-magenta				
M58	Raster-yellow				
M59	Raster-cyan 274				
M60	Raster-50 flesh color				
M61	Raster-50 light purple				
M62	Raster-50 sky blue				
M63	Raster-red 779				
M64	Raster-cyan 218				
M65	Raster-cyan 448				
M66	Raster-43 flesh color				
M67	Raster-red 640				
M68	Raster-magenta 98				
M69	Raster-43 sky blue 1				
M70	Raster-43 sky blue 2				
M71	Raster-43 light purple				
M72	Raster-blue 960				
M73	Raster-yellow 200				
M74	Raster-gray 511 (spare)				
MBG	AD MAIN B GAIN	○	000	255	
MBO	AD MAIN B OFFSET	○	000	255	
MCD	Indicating the current color decoding				
MCDS01	Setting the color decoding to RGB (VIDEO)				
MCDS02	Setting the color decoding to COMPONENT1 (YCbCr)				
MCDS03	Setting the color decoding to COMPONENT2 (YPbPr)				
MGG	AD MAIN G GAIN	○	000	255	
MGO	AD MAIN G OFFSET	○	000	255	
MRG	AD MAIN R GAIN	○	000	255	
MRO	AD MAIN R OFFSET	○	000	255	
MTN	Turning the video mute off				
MTY	Turning the video mute on				
[N]					
NGN	Prohibiting shutdown operation				No writing of the latest data
[P]					
PAF	PEAK LIMITER OFF				
PAN	PEAK LIMITER ON				
PBH	Panel W/B B-HIGH adjustment	○	000	511	
PBL	Panel W/B B-LOW adjustment	○	000	999	
PDN	Do not pass a PD signal through the POWER SUPPLY Unit				
PDY	Pass a PD signal through the POWER SUPPLY Unit				
PGH	Panel W/B G-HIGH adjustment	○	000	511	
PGL	Panel W/B G-LOW adjustment	○	000	999	
PMD	Indicating the pulse meter				
POF	Turning the power OFF				
PRH	Panel W/B R-HIGH adjustment	○	000	511	
PRL	Panel W/B R-LOW adjustment	○	000	999	
[R]					
RYG	RY GAIN	○	000	255	
[S]					
SBG	AD SUB B GAIN	○	000	255	
SBO	AD SUB B OFFSET	○	064	191	
SFT	Indicating the current signal format				

F

Command	Operation	Validity of Direct Numeric Input	Lower limit	Upper limit	Remarks
SFTS01	Setting the signal format to PC FORMAT1 (VGA or XGA or SXGA or 720-PC)				
SFTS02	Setting the signal format to PC FORMAT2 (WVGA or WXGA or SXGA+)				
SFTS03	Setting the signal format to (VIDEO) 525p or 750p				
SFTS04	Setting the signal format to PC AUTO				
SGG	AD SUB G GAIN	○	000	255	
SGO	AD SUB G OFFSET	○	064	191	
SN0	Setting 1, 2, or 3 for the serial number of the panel				
SN1	Setting 4, 5, or 6 for the serial number of the panel				
SN2	Setting 7, 8, or 9 for the serial number of the panel				
SN3	Setting 10, 11, or 12 for the serial number of the panel				
SN4	Setting 13, 14, or 15 for the serial number of the panel				
SRG	AD SUB R GAIN	○	000	255	
SRO	AD SUB R OFFSET	○	064	191	
SVL	Adjusting the sub volume	○	000	020	
SWM	Full-screen display of main output				
SWN	Main/sub displays OFF				
SWS	Full-screen display of sub output				
SZM	Indicating the current screen size setting				
SZMS00	Setting the screen size to Dot by Dot or PARTIAL				
SZMS01	Setting the screen size to 4:3				
SZMS02	Setting the screen size to FULL or FULL1080i				
SZMS03	Setting the screen size to ZOOM				
SZMS04	Setting the screen size to CINEMA				
SZMS05	Setting the screen size to WIDE				
SZMS06	Setting the screen size to FULL1035i				
[U]					
UAJ	Determining the adjustment flag of the DIGITAL VIDEO Assy in "adjustment is completed"				
UP0	Increasing the adjustment value by 10				
UPn	Increasing the adjustment value by n (n=1 to 9)				
UPF	Maximizing the adjustment value				
[V]					
VOF	Offset voltage adjustment	○	000	255	
VOL	Adjusting the audio volume	○	000	045	
VRO	Selecting the variable audio output				
VSG	CVY GAIN	○	064	191	
VSO	Adjusting the CV/YC input with difference in the input	○	000	255	
VSU	SUS voltage adjustment	○	000	255	
[X]					
XD1	D1 trailing-edge pulse of X-SUS	○	000	255	
XD2	D2 trailing-edge pulse of X-SUS	○	000	255	
XU1	U1 leading-edge pulse of X-SUS	○	000	255	
XU2	U2 leading-edge pulse of X-SUS	○	000	255	
[Y]					
YD1	D1 trailing-edge pulse of Y-SUS	○	000	255	
YD2	D2 trailing-edge pulse of Y-SUS	○	000	255	
YD3	D3 trailing-edge pulse of Y-SUS	○	000	255	
YD4	D4 trailing-edge pulse of Y-SUS	○	000	255	
YU1	U1 leading-edge pulse of Y-SUS	○	000	255	
YU2	U2 leading-edge pulse of Y-SUS	○	000	255	

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 CONFIGURATION OF THE PC BOARD

A

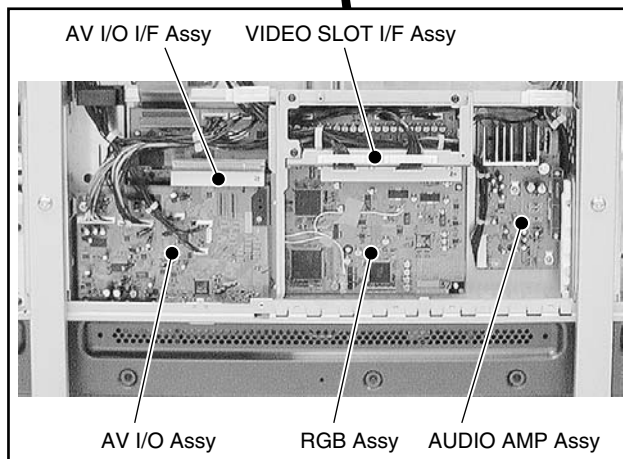
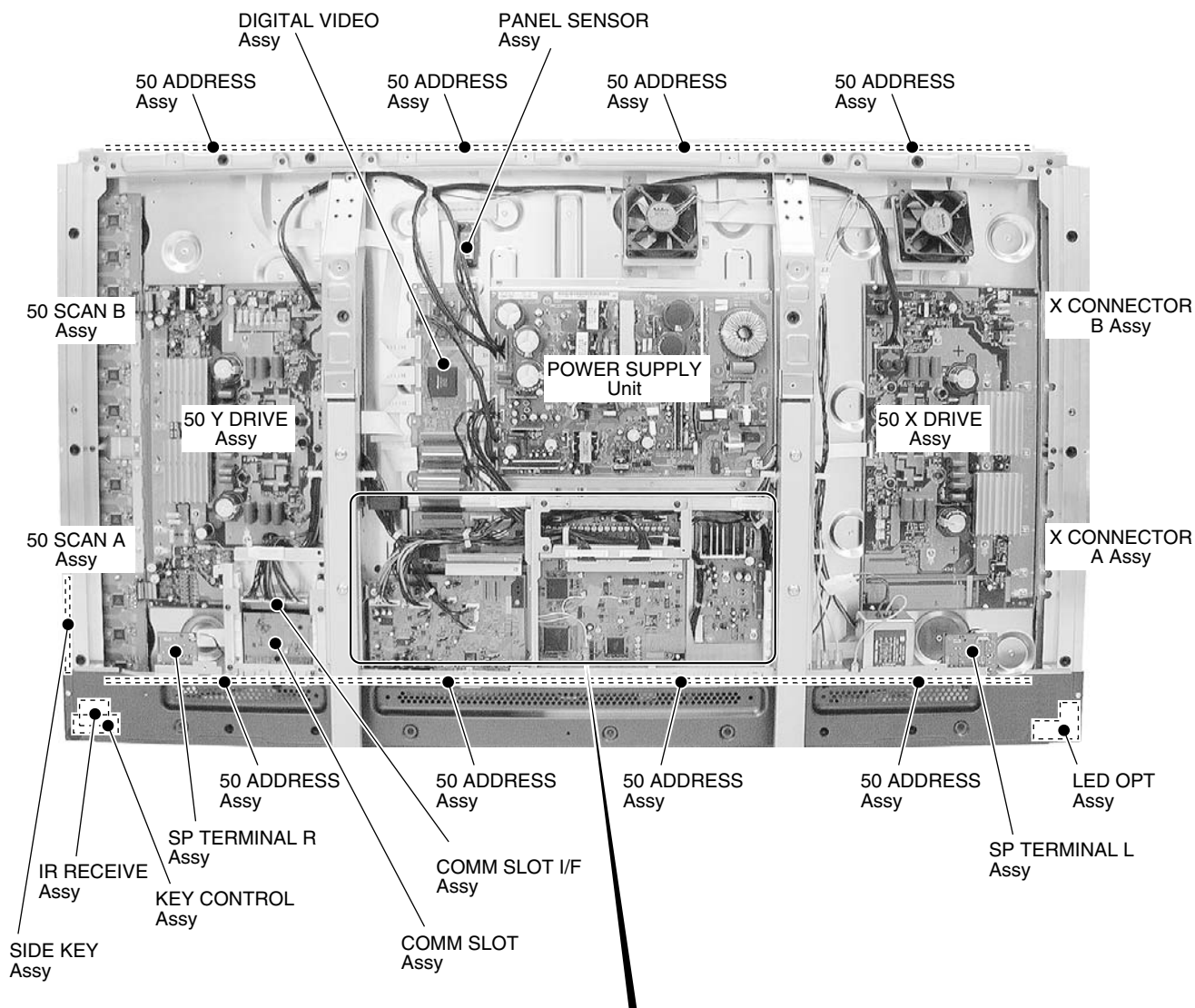
B

C

D

E

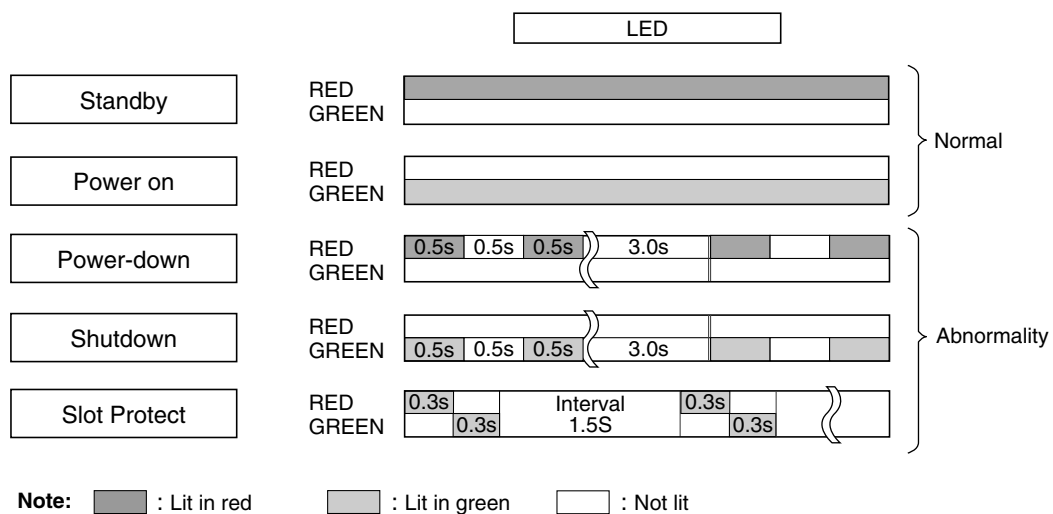
F



● Rear view

7.1.2 DIAGNOSIS FOR SHUTDOWN AND POWER-DOWN BY LED

• Operation statuses indicated by LEDs



• Identification of locations having abnormality by the number of times the LEDs flash

■ On Shutdown and power-down

Shutdown

- Operation: When the microcomputer detects any abnormality, it forcibly shuts the unit off.
- LED indication: The LED flashes in green.

Note: The LED flashes regardless of the FRONT INDICATOR setting on the Integrator menu.

Power-down

- Operation: When the unit is in emergency status, a protection circuit is activated, and the power is shut off.
- LED indication: The LED flashes in red.

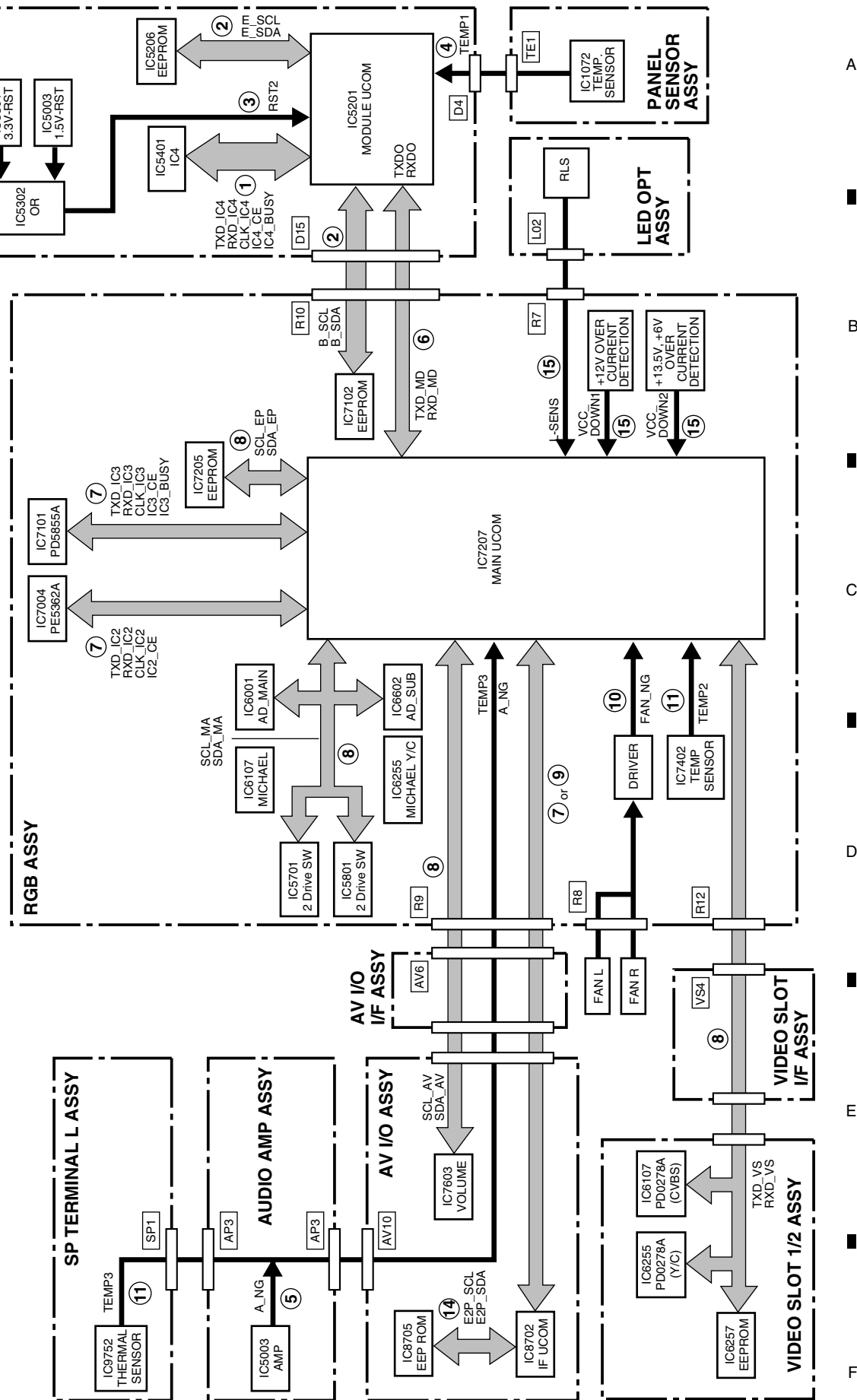
Category	LED		Content	Unit's Operation	Warning Message
	STB	ON			
SD		Once	Communication failure of the panel-drive IC	Shutdown 3 seconds after warning	Shutdown by circuit failure (01)
		Twice	Communication failure of the module IIC	Shutdown 3 seconds after warning	Shutdown by circuit failure (02)
		3 times	Power decrease of the digital DC-DC converter	Immediate shutdown	
		4 times	Panel having high temperature	Shutdown 30 seconds after warning	Shutdown by warning temperature rise (04)
		5 times	Audio failure	Shutdown 3 seconds after warning	Shutdown by warning speaker failure (05)
		6 times	Communication failure of the module microcomputer	Shutdown 3 seconds after warning	Shutdown by circuit failure (06)
		7 times	Main 3-wire serial communication in failure	Shutdown 3 seconds after warning	Shutdown by circuit failure (07)
		8 times	Communication failure of the main IIC	Shutdown 3 seconds after warning	Shutdown by circuit failure (08)
		9 times	Communication failure of the main microcomputer	Immediate shutdown	
		10 times	Fan in failure	Shutdown 3 seconds after warning	Shutdown by warning fan abnormality (10)
		11 times	Unit having higher temperature	Shutdown 30 seconds after warning	Shutdown by warning temperature rise (11)
		13 times	Main microcomputer ASIC power supply NG	Immediate shutdown	
		14 times	Communication failure of IF-EEPROM	Shutdown 3 seconds after warning	Shutdown by circuit failure (14)
		15 times	Other failure	Shutdown 30 seconds after warning	Shutdown by circuit failure (15)
			RLS	Shutdown 3 seconds after warning	
			VCC-D1 VCC-D2	Shutdown 3 seconds after warning	
PD	Once				
	Twice		Power	Immediate power-down	
	3 times		SCAN	Immediate power-down	
	4 times		SCAN-5V	Immediate power-down	
	5 times		Y-DRIVE	Immediate power-down	
	6 times		Y-DCDC	Immediate power-down	
	7 times		Y-SUS	Immediate power-down	
	8 times		ADDRESS	Immediate power-down	
	9 times		X-DRIVE	Immediate power-down	
	10 times		X-DCDC	Immediate power-down	
	11 times		X-SUS	Immediate power-down	
	12 times		DIGITAL-DCDC	Immediate power-down	
	15 times		UNKNOWN (Not identified) *	Immediate power-down	

* If the unit cannot identify which protection circuit was activated, even if a power-down had been detected, the red LED may flash 15 times.

• Block diagram of the shutdown signal system

Note:

The figures ① - ⑭ indicate the number of times the LED flashes when shutdown occurs in the corresponding route.



• Diagnosis of shutdown

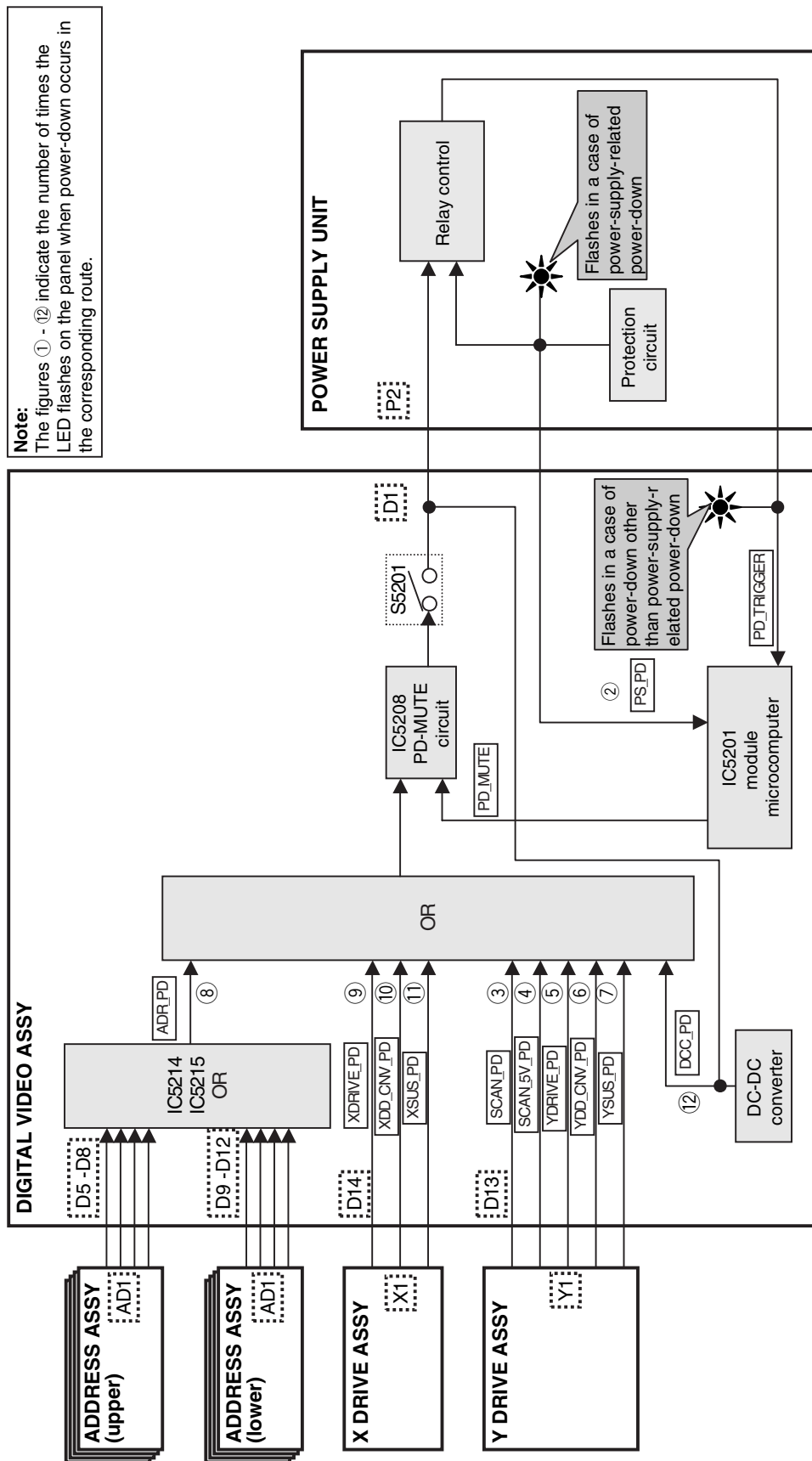
SD Circuit in Operation	Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
1 Communication failure of the panel-drive IC	DIGITAL VIDEO	Communication failure of IC4 or defective peripheral circuits	IC4 Block, Panel Flash Block	IC5401, IC5305	
2 Communication failure of the module IC (Check the shutdown subcategory on the Factory menu.)	DIGITAL VIDEO	Writing failure of IC4			After turning the unit on again, check if the data on the version can be read with the GS1 command.
	DIGITAL VIDEO	Communication failure of the EEPROM (4k) or defective peripheral circuits	Module Ucom Block	IC5206	
	RGB	Communication failure of the EEPROM (2k) or defective peripheral circuits	IC3 Block	IC7102	
		Defective 114-pin FPC	CN400(D15) - CN7101(R10)	ADY1081	Check if the cable is disconnected or not securely connected.
3 Power decrease of DIGITAL-DC-DC	DIGITAL VIDEO	Defective DC-DC converter	Digital DD Control Block	U5601	Check if 3.3V, 2.5V, and 1.5V are activated (not short-circuited).
	DIGITAL VIDEO	Defective RST IC	Panel Flash Block	IC5301, IC5302, IC5303	
	POWER SUPPLY	No startup of 12 V			
4 Panel having higher temperature	DIGITAL VIDEO	Disconnection of cable	CN5202 - CN1071		
		Panel having higher temperature	Surrounding temperature		Temperature detected by a sensor must not exceed 90°C (TEMP1).
		Speaker short-circuited	Speaker terminals		Check if the speaker cables are in contact with the chassis, etc.
5 Audio failure	AUDIO AMP	Defective AMP IC	Audio Amp	IC5003	
	AUDIO AMP	Disconnection of cable	CN7601(AV1) - CN5001(AP2)		Check if the cable is disconnected or not securely connected.
	DIGITAL VIDEO	Communication failure in the module microcomputer or defective peripheral circuits	Module Ucom Block	IC5201	Check short/open of the communication line (TXDO/RXDO).
6 Communication failure of the module microcomputer		Failure in writing in the module microcomputer	Module Ucom Block	IC5201	
		Defective 114-pin FPC	CN4004(D15) - CN7101(R10)	ADY1081	Check if the cable is disconnected or not securely connected.
	AV I/O	Communication failure in the IF microcomputer or defective peripheral circuits	IF Ucom Block	IC8702	Check short / open of the communication line (TXD_IF/RXD_IF/CLK_IF/BUSY_IF/CE_IF)
7 Serial communication failure of the 3-wire of the main microcomputer	RGB	Communication failure in the CELIA or defective peripheral circuits	IC2 Block	IC7004	Check short / open of the communication line (TXD_IC2/RXD_IC2/CLK_IC2/CE_IC2)
	RGB	Communication failure in the MIKE or defective peripheral circuits	IC3 Block	IC7101	Check short / open of the communication line (TXD_IC3/RXD_IC3/CLK_IC3/BUSY_IC2/CE_IC3)
	RGB	Failure in writing in the MIKE	IC3 Block	IC7101	
	VIDEO SLOT1 or 2	Failure in MICHAEL Y/C or defective peripheral circuits	IC1 (Y/C) Block	IC6255	
	VIDEO SLOT1 or 2	Failure in MICHAEL CVBS or defective peripheral circuits	IC1 (CVBS) Block	IC6107	
	RGB	Failure in AD MAIN or defective peripheral circuits	Main AD Block	IC6001	
	RGB	Failure in AD SUB or defective peripheral circuits	Sub LPF & AD Block	IC6602	
	RGB	Failure in ROZ or defective peripheral circuits	Bus SW1 Block	IC5701	
	RGB	Failure in ROZ or defective peripheral circuits	Bus SW2 Block	IC5801	
8 IIC communication failure of the main microcomputer (Confirm the SD subcategory in the factory menu)	AV I/O	Failure in VOL IC or defective peripheral circuits	AV I/O Assy	IC7603	
	RGB	Failure in EEPROM or defective peripheral circuits	Main Ucom Block	IC7205	
	VIDEO SLOT1 or 2	Failure in EEPROM or defective peripheral circuits	IC1 (Y/C) Block	IC6257	
		Defective communication line between any of the above devices and the main microcomputer		IC7207	Check short / open of SCL_AV/SDA_AV, SCL_MA/SDA_MA and SCL_EP/SDA_EP

SD Circuit in Operation	Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
9 Communication failure in main microcomputer	RGB	Communication failure in main microcomputer or defective peripheral circuits	Main Ucom Block	IC7207	Check short / open of communication line (TXD_IF/RXD_IF/CLK_IF/BUSY_IF/CE_IF/REQ_IF)
	RGB	Failure in writing in the main microcomputer	Main Ucom Block	IC7207	
	FAN	Failure in the fan motor or fan stopped by attached dust			
10 Fan failure	RGB	Disconnection of cable	Relay part between CN7402 (R8) and the wire from the fan		Check if the cable is disconnected or not securely connected.
11 Unit having higher temperature		Use under high temperature	Surrounding/internal		Temperature detected by a sensor must not exceed 65°C (TEMP3) / 95°C (TEMP2)
	AUDIO AMP	Disconnection of cable	CN5003(AP3) - CN8702(SPT1)		Check if the cable is disconnected or not securely connected.
14 Communication failure in IF EEPROM	AV I/O	Communication failure in EEPROM or defective peripheral circuits	I/F Ucom Block	IC8705	Check short / open of E2P_SCL/E2P_SDA
15 Other failures	RLS	Disconnection of cable	CN9051(L0) - CN7205(R7)		Check if the cable is disconnected or not securely connected.
	VCC-D1	Defective circuits in the 12V system			Check for shortcircuits in the 12V system.
	VCC-D2	Defective circuits in the 13.5V and 6.5V systems.			Check for shortcircuits in the 13.5V and 6.5V systems.

• Diagnosis of abnormalities other than shutdown and power-down

Symptoms	Defective Assy	Abnormal Summary	Point to be Checked	Possible Defective Part	Remarks
No power (LED unit)		Disconnection of cable	CN7404		Check if the connection between the POWER SUPPLY and RGB assemblies is properly made.
	POWER SUPPLY	STB 3.3 V not started	CN7404(AV1)-11 pin		
	AV I/O	Defective IF microcomputer	I/F Ucom Block	IC8702	Check if the oscillation is normal (X8701 = 32 kHz, X8702 = 9.8 MHz) and if RESET is set to H (IC8703).
No power (The LED remains lit in red and does not light in green.)	RGB	Defective main microcomputer	Main Ucom Block	IC7207	If communication with the main microcomputer fails approx. 20 seconds after the AC power is on, the main microcomputer may be defective.
Key input not effective		Disconnection of cable	CN4801 - CN8002 CN9001 - CN8702		Check if the cables are not connected or securely connected.
Remote control unit not effective		Disconnection of cable	CN4901 - CN8901		Check if the cable is not connected or securely connected.
	IR RECEIVE	Defective IR receiver section	IR	U4901	Check if a pulse is output when the key corresponding to Pin 3 of the CN4901 is pressed.
	DIGITAL VIDEO	Defective IC4	IC4 Block	IC5401	Check if an abnormal area in the screen changes when the FPC connected to the address corresponding to the abnormal area is replaced with the one corresponding to the next address.
Abnormal screen (Data of every other dot are abnormal)	ADDRESS				Check that an abnormal area in the screen does not change when the FPC connected to the address corresponding to the abnormal area is replaced with the one corresponding to the next address.
		Defective 114-pin FPC	CN7101 - CN5001	ADY1081	Check if the FPC is broken or not securely connected.

• Block diagram of the power-down signal system



• Power-down diagnosis (defective points)

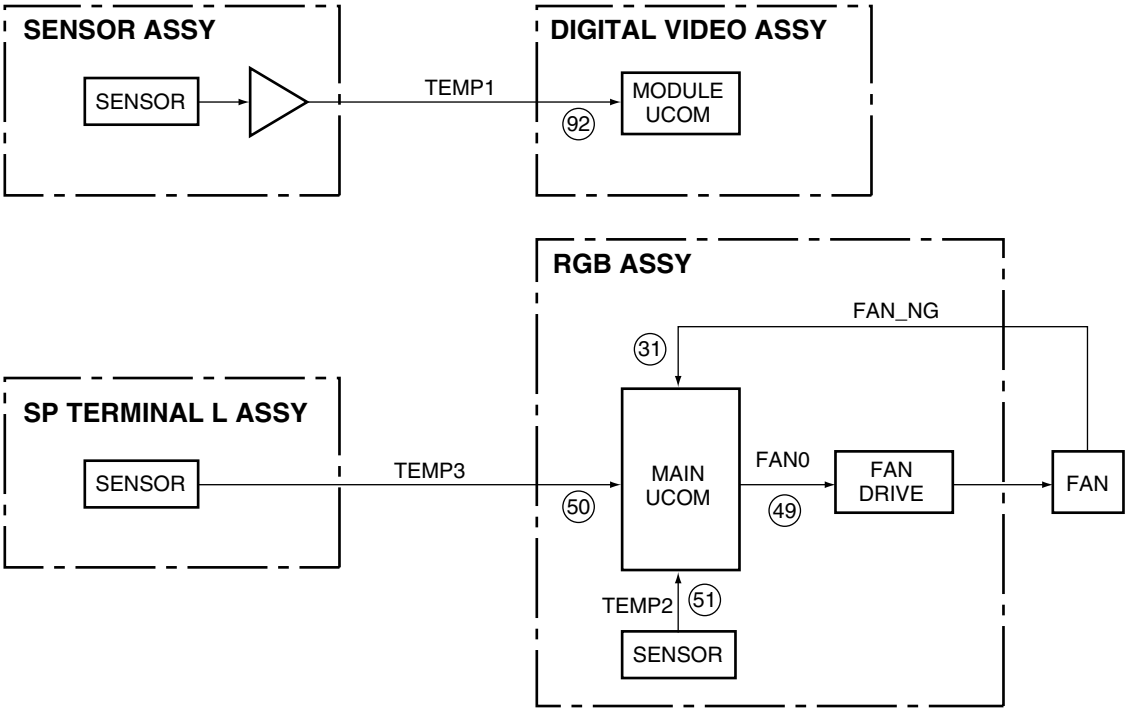
PD Circuit in operation	Defective Assy	Reason for Power-down	Point to be Checked	Possible Defective Part	Remarks
1 NONE					
2 POWER	POWER SUPPLY Unit				If the elapsed time from relay-on until the LED in the power supply unit lights is about 2-4 seconds, the defective assembly may be the 50 X or Y DRIVE.
	50 X DRIVE Assy	VSUS UVP	X SUS BLOCK	IC1203 - IC1207 (mask module)	
	50 Y DRIVE Assy	VSUS UVP	Y SUS BLOCK	IC2303 - IC2307 (mask module)	
3 SCAN	50 SCAN A, B Assy or Y 43 DRIVE Assy	VH UVP	SCAN IC	SCAN IC	
		VH UVP	VH DC/DC	IC2401, IC2402, IC2410, L2401	
		Disconnection of cable detected	CN2001, CN2301		
		Disconnection of cable detected	CN2101, CN2102		
4 SCN-5V	50 SCAN A, B Assy or 43 Y DRIVE Assy	IC5V UVP	SCAN IC, IC5V DC/DC Y SUS BLOCK	SCAN IC, Q2401, Q2402, IC2304, IC2309	
		IC5V OVP	IC5V DC/DC	IC2403, IC2411	
5 Y-DRIVE	50 Y DRIVE Assy	+16.5V OCP	Y SUS BLOCK	IC2303 - IC2307 (mask module), IC2301, IC2304, R2309	
6 Y-DCDC	50 Y DRIVE Assy	VOFS UVP	VOFS DC/DC	IC2404, IC2412, Q2404, Q2407	
		VOFS OVP	VOFS DC/DC	IC2404, IC2412	
		VH OVP	VH DC/DC	IC2402, IC2410	
7 Y-SUS	50 Y DRIVE Assy	Power-down caused by detection of middle-point voltage	Y RESONANCE BLOCK	Q2202, Q2214, Q2205, Q2206, Q2208, Q2209, Q2211, Q2212, IC2201, IC2202, Control signal series resistors	
	DIGITAL VIDEO Assy	Power-down caused by detection of middle-point voltage	DIGITAL VIDEO Assy	IC5401, Control signal series resistors	
		Disconnection of cable detected	CN1501		
8 ADRS	50 ADDRESS Assy	Power-down caused by detection of a power surge	ADR RESONANCE BLOCK	R1631, Q1601, D1602	
		Power-down caused by detection of middle-point voltage	ADR RESONANCE BLOCK	Q1602, C1609, D1606, D1607	
		Disconnection of cable detected	CN1001, CN1201		
9 X-DRIVE	50 X DRIVE Assy	+16.5V OCP	X SUS BLOCK	IC1203, IC1207 (mask module), IC1204, IC1206, R1230	
		VRN OCP	X SUS BLOCK	Q1205, R1226, R1251	
		VRN OVP	VRN DC/DC	IC1403, IC1404	
10 X-DCDC	50 X DRIVE Assy	VRN UVP	VRN DC/DC	IC1402, IC1403, IC1404	
			X SUS BLOCK	Q1205, R1226, R1251	
11 X-SUS	50 X DRIVE Assy	Power-down caused by detection of middle-point voltage	X RESONANCE BLOCK	Q1102, Q1103, Q1105, Q1106, Q1108, Q1109, Q1111, Q1112, IC1101, IC1102, Control signal series resistors	
	DIGITAL VIDEO Assy	Power-down caused by detection of middle-point voltage	DIGITAL VIDEO Assy	IC5401, Control signal series resistors	
12 DIG-DCDC	DIGITAL VIDEO Assy	DCDC +3.3V, +1.5V OVP	DC DC CONVERTER BLOCK	U5601 (DC DC CONVERTER Module)	OVP : Over Voltage Protection UVP : Under Voltage Protection OCP : Over Current Protection

1234

7.1.3 PROCESSING AT THE TIME OF ABNORMALITIES

Fan and temperature sensor

● Circuitry



● Port monitoring specifications

Port Name	Shutdown Name	Assign	Control Microcomputer	Active	Remarks
FAN_NG	FAN	31	Main	Shutdown when the signal becomes high	Disconnection of the fan connector or abnormality in operation of the fan detected
TEMP1	Unit under high temperature	92	Module	Shutdown when the set value is exceeded	Monitoring high temperature of the panel, Drive system temperature compensation
TEMP2	Unit under high temperature	51	Main		Monitoring high temperature of boards
TEMP3	Unit under high temperature	50	Main		Monitoring ambient temperature

7.1.4 TEMPERATURE COMPENSATION OF DRIVE SYSTEM VOLTAGE

Function: To control the DRIVE-system voltage according to the temperature (Temperature compensation functions such that the voltage is lowered on the lower-temperature side and the voltage becomes higher on the higher-temperature side.)

Purpose: For improving the yield by compensating for the temperature characteristics of the panel

Note:

- Temperature compensation is performed only for the VSUS voltage, and not for the VOFS voltage. This compensation is controlled by the software.
- Temperature compensation is carried out with the value of TEMP1.

7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM

Function: Only the power for the low voltage lines (16 V, 12 V, and 6.5 V) is on, and the power for the high voltage lines (VSUS, VADR) is off.

Usage:

1. Use when only an operational check for the low voltage lines is required, such as when making repairs.
2. Use when rewriting of a program for each microcomputer is required.

Methods:

- 1 Set the slide switch (S5201) on the DIGITAL VIDEO Assy to its upper position ("DRF" is mentioned on the board see Fig. below).
2. Send the "DRF" RS232C command to turn the large-signal system off.
3. Send the "DRN" RS232C command to turn the large-signal system on.

Notes:

- As the unit enters Power-Down and Muting On mode when Methods 1 and 2 are performed, and power-downs other than those caused by the power (PS_PD) and DC-DC-converter (DIGITAL_DC-DC) circuits are not activated.
- If the slide switch is set from OFF to ON while the power is on, a power-down will occur. Be sure to turn the power off before switching the slide switch.
- Although the "DRF" RS232C command is enabled during Standby, if the power is turned on then turned off, the unit will return to "DRN" mode.

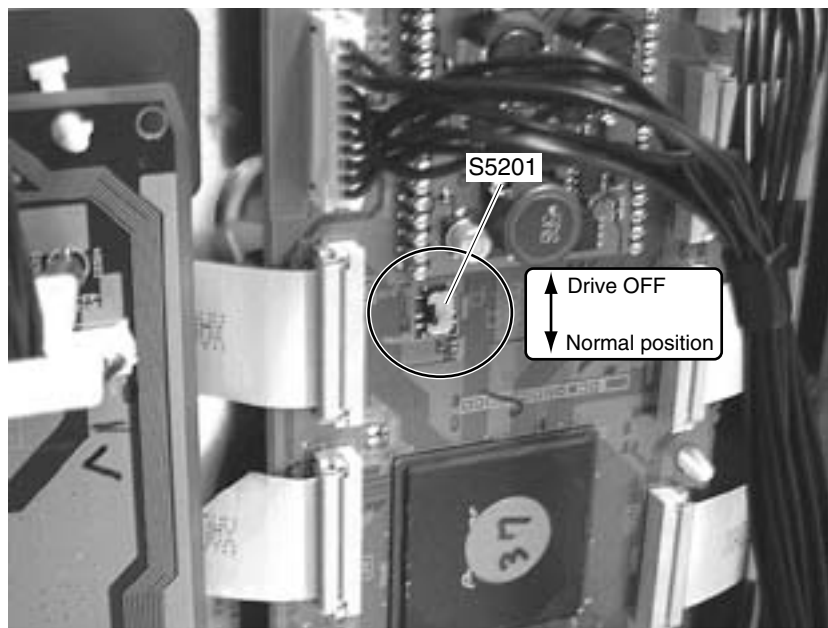


Fig. Drive OFF switch

7.1.6 BACKUP THE ADJUSTMENT VALUES FOR THE MAIN UNIT

Outline

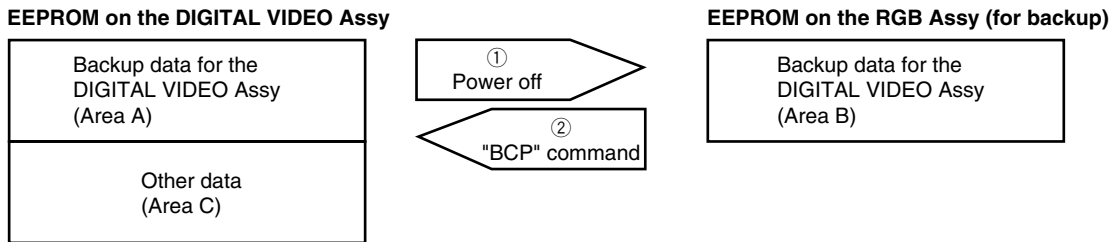
The data on the adjustment values for the main unit are stored in an EEPROM (IC5206, 4 kbits) on the DIGITAL VIDEO Assy. Part of the data (area A in the figure below) are automatically copied to an EEPROM (IC7102, 2 kbits) mounted on the RGB Assy for backup. When the DIGITAL VIDEO Assy is replaced, the backup data on the adjustment values for the main unit stored in the RGB Assy can be copied to the new DIGITAL VIDEO Assy, thus enabling you to omit newly performing adjustments on the main unit. The logs for the product (power-down log, etc.) can also be copied.

Data to be backed up in the digital EEPROM (area A)

- Margin adjustment values (V_{sus}, V_{ofset})
- Power upper-limit adjustment value (ABL)
- PANEL white-balance adjustment values (PANEL-R HIGH, PANEL-G HIGH, PANEL-B HIGH, PANEL-R LOW, PANEL-G LOW, PANEL-B LOW)
- Drive waveform adjustment values (X-SUS-U1, X-SUS-U2, X-SUS-D1, X-SUS-D2, Y-SUS-U1, Y-SUS-U2, Y-SUS-D1, Y-SUS-D2, Y-SUS-D3, Y-SUS-D4)
- Hour meter
- Pulse meter
- Number of times the power has been turned on
- PD/SD logs

Basic flow of automatic backup

Using a keyword, the data in areas A and B are judged as to whether they have been adjusted or not, then copying is performed.

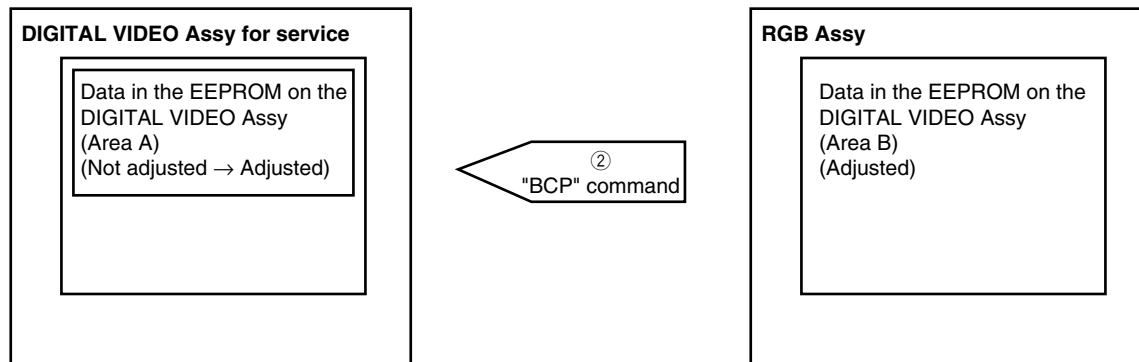


- ① The keyword on the DIGITAL VIDEO Assy is checked when the power is turned off, and if it is "adjusted", automatic backup is performed.
- ② If the keyword on the RGB Assy (Area B) is "adjusted," copying can be performed with the "BCP" RS232C command.

Actual automatic backup operations

1. When the DIGITAL VIDEO Assy is replaced with an Assy for service

Changing of keywords is not required. Replace the DIGITAL VIDEO Assy with an Assy for service, and send the "BCP" RS232C command. Thus, the backup data in the EEPROM on the RGB Assy are copied to the EEPROM on the DIGITAL VIDEO Assy for service.



2. When a repaired DIGITAL VIDEO Assy is mounted on another unit (reuse of the repaired DIGITAL VIDEO Assy)

The keyword of the DIGITAL VIDEO Assy to be reused must be changed to "not adjusted" using the "UAJ" RS232C command.

Note 1: If a repaired DIGITAL VIDEO Assy is mounted in another unit (Unit 2) without this change of keyword, and the power to the unit 2 is turned off, the data in force before the repair of the DIGITAL VIDEO Assy will be copied to Area B of the RGB Assy of Unit 2, overwriting the data necessary for Unit 2. Once overwritten, the original data will not be restored.

3. When a repaired DIGITAL VIDEO Assy is mounted on the original unit (reuse of the repaired DIGITAL VIDEO Assy)
Changing of keywords is not required. After the repaired DIGITAL VIDEO Assy is mounted in the original unit, the unit can operate with its latest adjustment values.

4. When both the DIGITAL VIDEO Assy and RGB Assy are simultaneously replaced with other assemblies
The automatic backup function of this unit will not work properly.

Note 2: Readjustment of the main unit is required.

Note 3: After readjustment of the main unit, send the "FAJ" RS232C command to change the keyword of the DIGITAL VIDEO Assy to "adjusted." Thus, when the unit is turned off, automatic backup of adjustment data is performed properly.

Note 4: If readjustment of the main unit is totally impossible, it can be omitted by installing the EEPROM (IC5206, 4 kbits) originally mounted on the DIGITAL VIDEO Assy for service.

Note 5: After copying the backup data, turn the power off then back on to reflect the copied backup data.

Miscellaneous

If the white balance (W/B) value is largely shifted because of aging, etc., W/B adjustment is required. (As this may be a rare case, the adjustment procedures are described below, just for your reference.

[W/B-adjustment procedures]

The W/B adjustment can be performed with the RS232C commands. Minolta CA-100 color difference meter are required.

- ① Send the "FAY" RS232C command to enter Factory mode.
- ② Set the keyword for the DIGITAL VIDEO Assy to "not adjusted" with the "UAJ" RS232C command.
- ③ Obtain the current adjustment values in the two adjustment tables (see "6.6 Command Description").
 - Shifting to Table 1: Send the "M51" and "F60" commands. Obtaining the adjustment values: Send the "GPW" command.
 - Shifting to Table 2: Send the "M51" and "F75" commands. Obtaining the adjustment values: Send the "GPW" command.
- ④ For each table, set the brightness.
 - Adjustment in Table 1: After sending the "F60" command, perform adjustment.
 - Adjustment in Table 2: After sending the "F75" command, perform adjustment.

For each table, change the RGB parameters so that the values measured using a Minolta color difference meter (CA-100) become as indicated below. In this case, any one of PRH, PGH, or PBH must be set to 256.

	Cd/mm	
x	285	"PRH**** : 000 - 511
y	289	"PGH**** : 000 - 511
		"PBH**** : 000 - 511

- ⑤ Check after adjustment
 - Shifting to Table 1: Send the "F60" command. Obtaining the adjustment values: Send the "GPW" command.
 - Shifting to Table 2: Send the "F75" command. Obtaining the adjustment values: Send the "GPW" command.

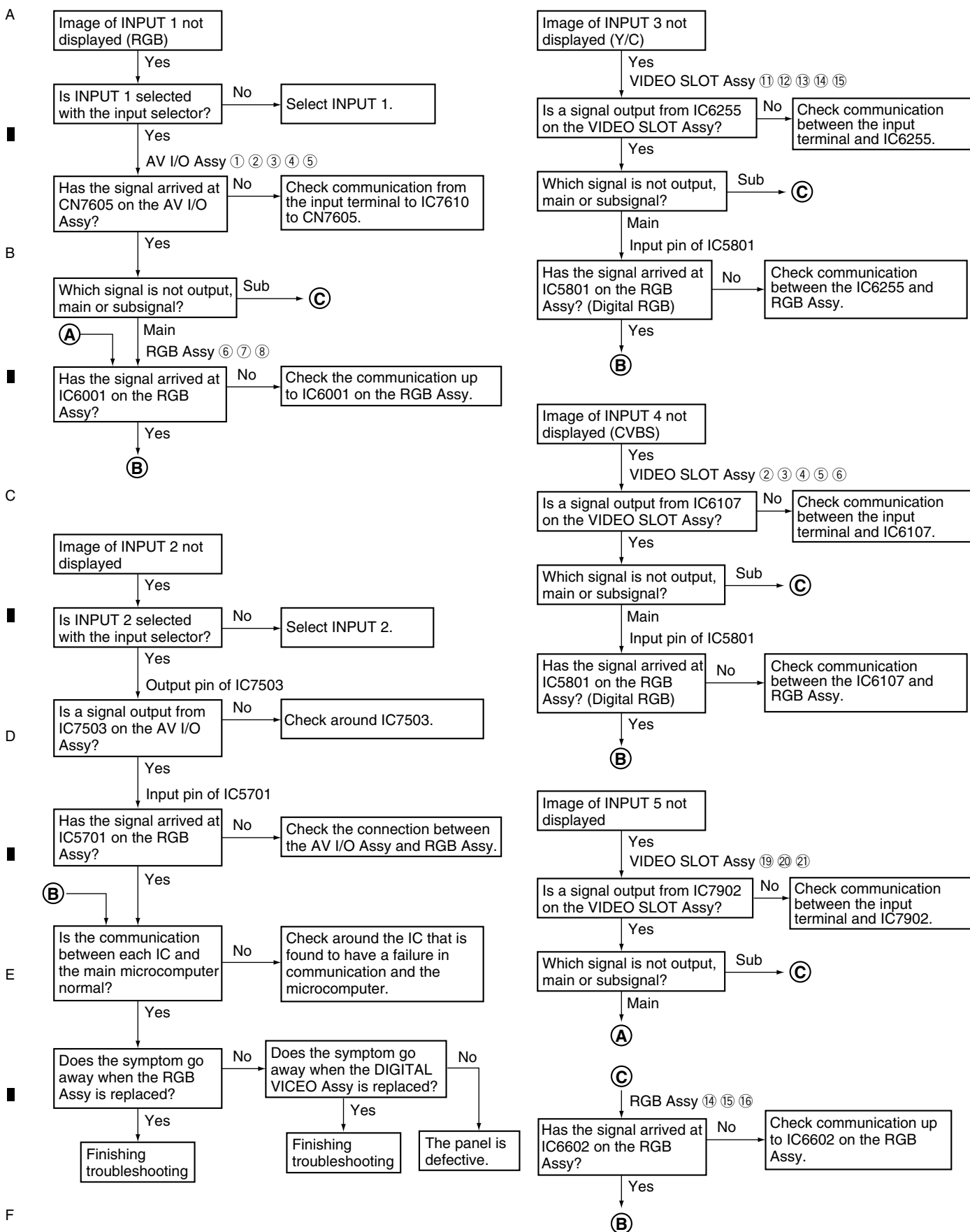
Check that the adjustment data have been changed.
- ⑥ Change the keyword for the DIGITAL VIDEO Assy to "adjusted" by sending the "FAJ" RS232C command.
Note: Use a Minolta CA-100 color difference meter or the equivalent for measurement. Otherwise, the specifications of the product cannot be assured.
- ⑦ Send the "FAN" RS232C command to enter Normal mode.
 - If the value is different from that you set, readjust it.

Note: To reset the adjustment to its original value, send the "BCP" RS232C command then turn the power off then back on to retrieve the backup data.

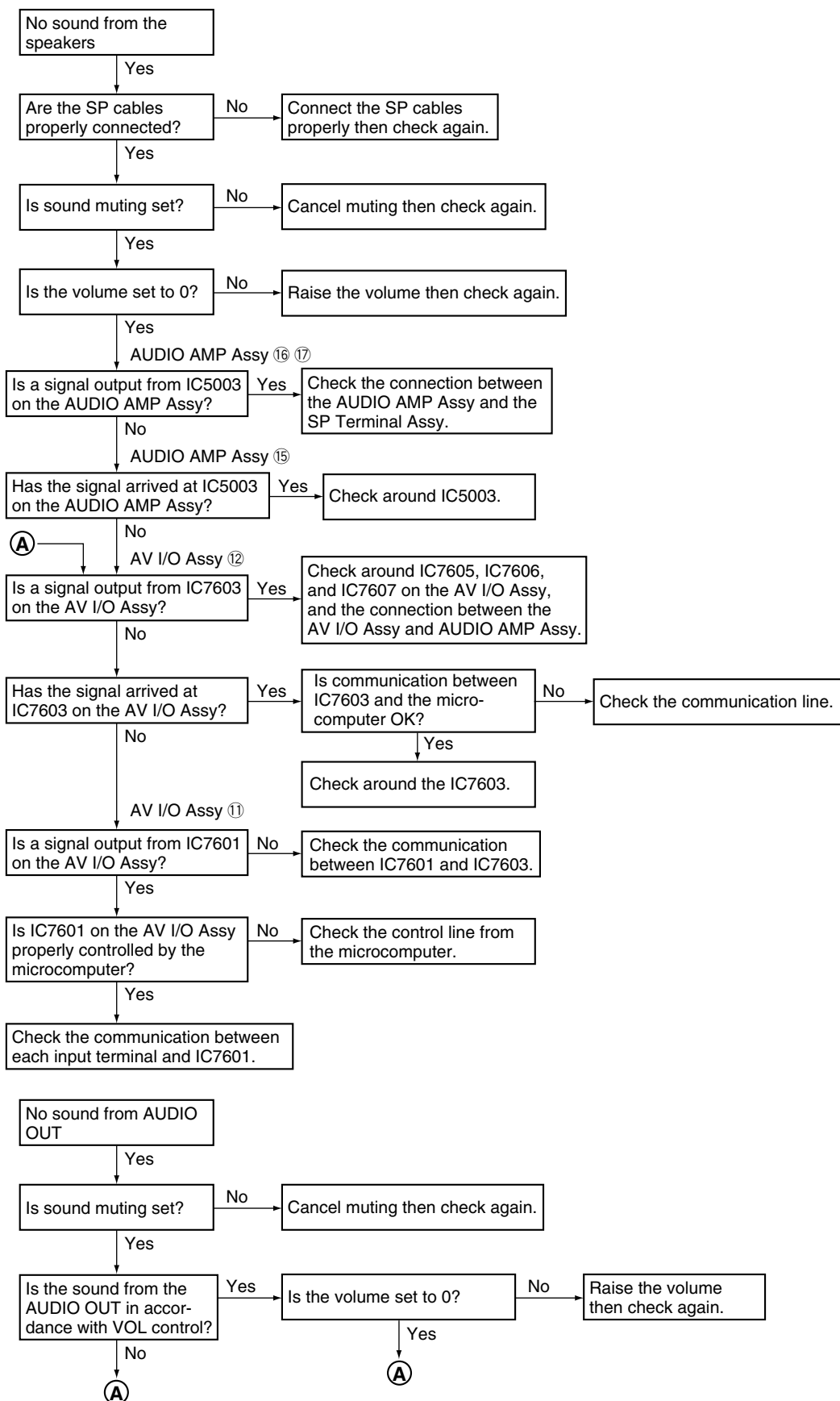
 - The setting values for color temperature differ between Factory mode and Normal mode. Therefore, the setting value for color-difference signals in Normal mode are different from those in Factory mode, even after the White Balance adjustment has been performed.

7.1.7 TROUBLESHOOTING

Video



Audio



7.1.8 DISASSEMBLY

1 Rear Case (50M), Front Case 504 (CMX)

① Remove the grip by removing the four screws.

② Remove the six screws.

③ Remove the seventeen screws.

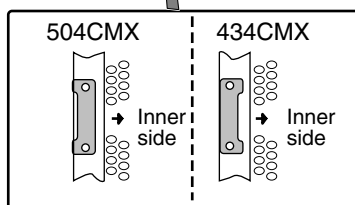
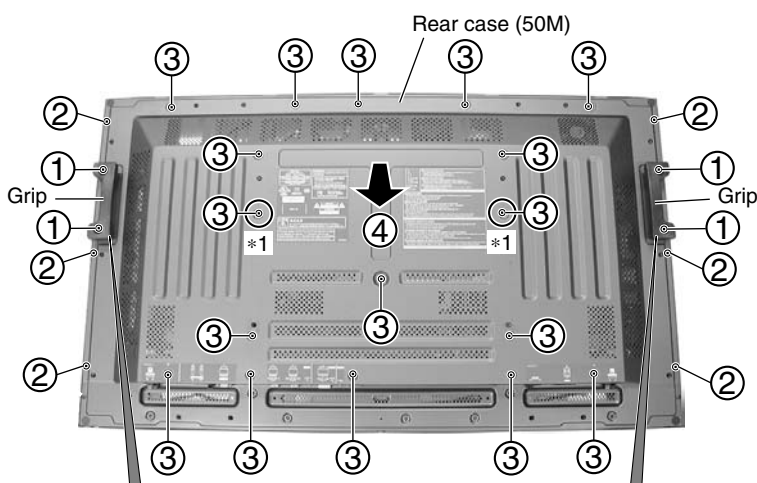
Note :

When reattaching the rear case (50M), first attach the screws for the holes indicated with *1 to place the rear case (50M) in the correct position.

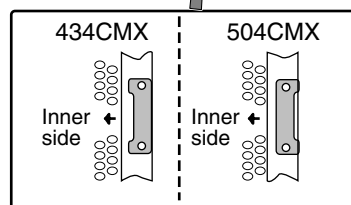
④ Remove the rear case (50M).

Note:

When reattaching the grip, be sure to securely tighten the screws.



Grip attachment position



Grip attachment position

⑤ Remove the three screws.

⑥ Remove the one rivet.

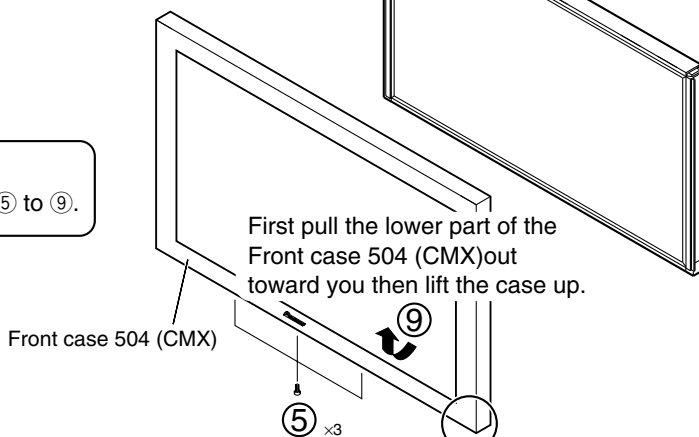
⑦ Remove the lead cover (4G).

⑧ Disconnect the flexible cable.

⑨ Remove the front case 504 (CMX).

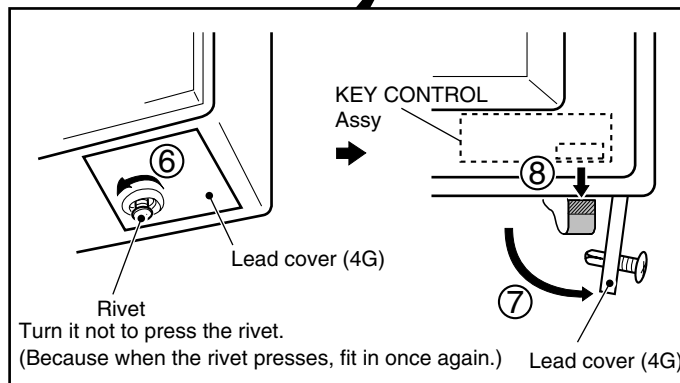
Note:

If only the front case must be removed, without removing the rear case, perform the steps ⑤ to ⑨.



First pull the lower part of the Front case 504 (CMX) out toward you then lift the case up.

Front case 504 (CMX)



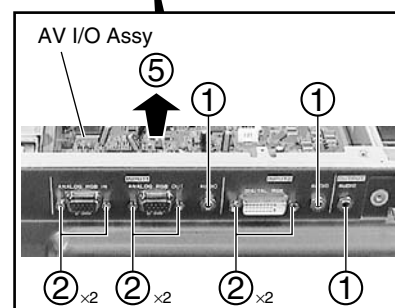
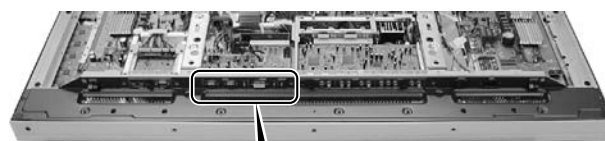
Turn it not to press the rivet.

(Because when the rivet presses, fit in once again.)

2 Multi Base Section

● Diagnosis of AV I/O Assy

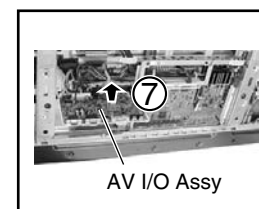
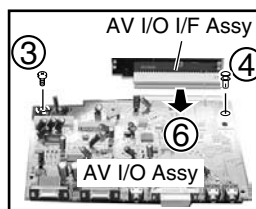
- ① Remove the three nuts.
- ② Remove the six hexagonal screws.
- ③ Remove the one screw.
- ④ Remove the one pin grommet.
- ⑤ Remove the AV I/O Assy with the AV I/O I/F Assy.



- ⑥ Remove the AV I/O Assy from the AV I/O I/F Assy.
- ⑦ Connect the AV I/O Assy to slot of the RGB Assy.

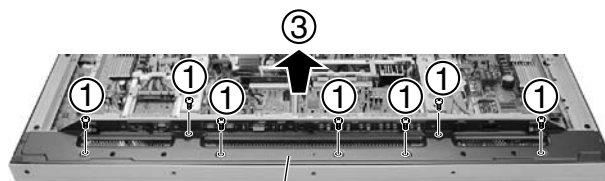


Diagnosis



● Removing Multi Base Section

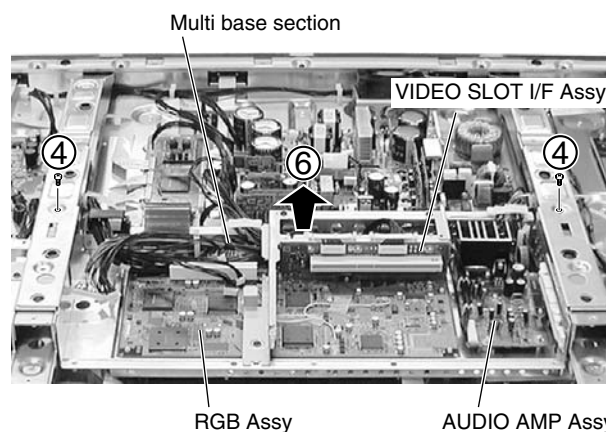
- ① Remove the seven screws.
- ② Disconnect the some connectors at need.
- ③ Remove the terminal panel (504CMX).



Terminal panel (504CMX)



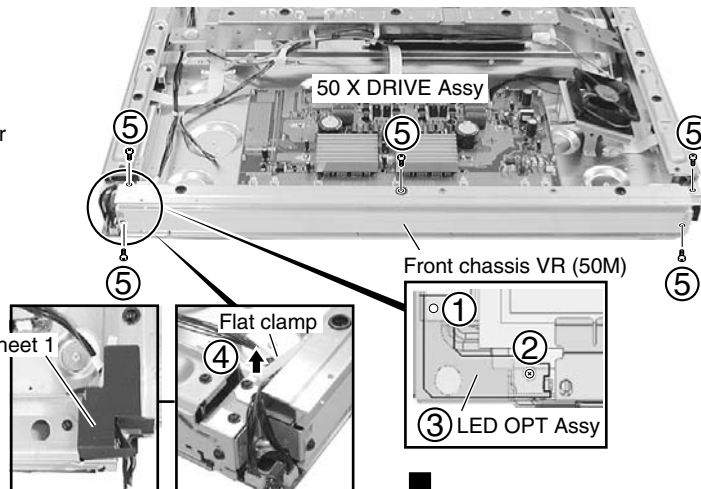
- ④ Remove the two screws.
- ⑤ Disconnect the some connectors at need.
- ⑥ Remove the multi base section.



3 X CONNECTOR A Assy, B Assy, 50 SCAN A Assy and B Assy

● X CONNECTOR A and B Assy

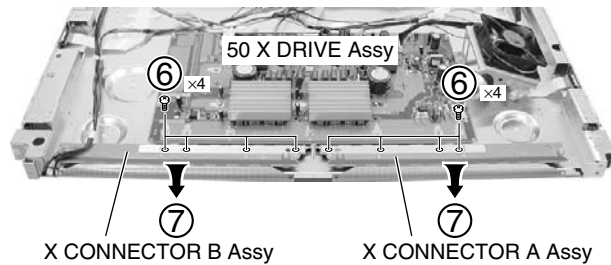
- ① Remove the one nylon rivet.
 - ② Remove the one screw.
- Note:** Be sure to remove this screw. If you don't, the connector on the LED OPT Assy may be damaged.
- ③ Remove the LED OPT Assy.
 - ④ Remove the jumper wire by removing the flat clamp.
 - ⑤ Remove the front chassis VR (50M) by removing the five screws.



Note:

Enclosure sheet 1 is attached to comply with the safety standards. Make sure that it will not be shifted or peeled off. If it is peeled off, securely reattach it in its original place.

- ⑥ Remove the eight screws.
- ⑦ Remove the X CONNECTOR A and B Assy.

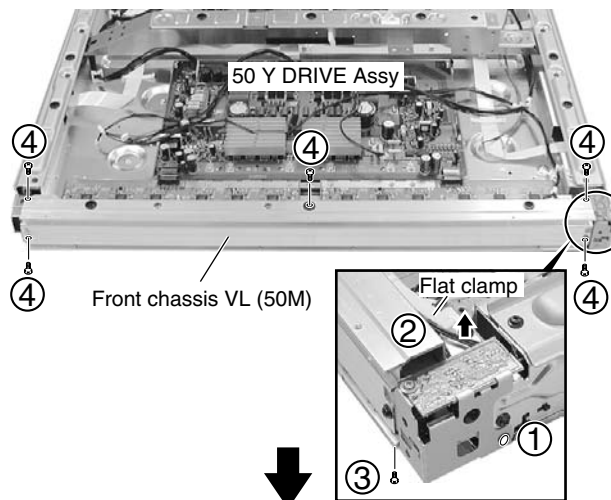


Note when reassembling the front chassis VR (50M)

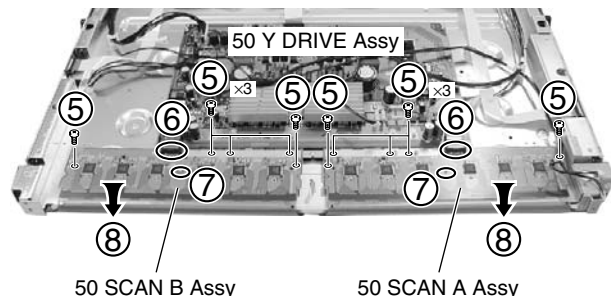
Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

● 50 SCAN A and B Assy

- ① Remove the one nylon rivet.
- ② Remove the jumper wire by removing the flat clamp.
- ③ Remove the one screw.
- ④ Remove the front chassis VL (50M) by removing the five screws.



- ⑤ Remove the ten screws.
- ⑥ Disconnect the two pin connectors.
- ⑦ Remove the two spacers.
- ⑧ Remove the 50 SCAN A and B Assy.



Note when reassembling the front chassis VL (50M)

Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

7.2 IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

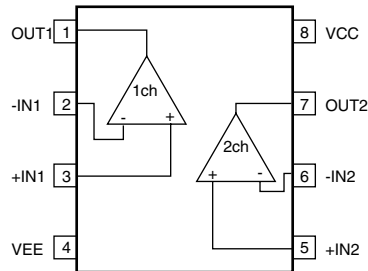
- **List of IC**

BA10393F, BA10358F, STK795-512, STK795-513, AN16003A, MBM29PL160BD-75PFTN, M30626FHPGP-P, PD5856A, AN5870SB, AD9883AKST-110, SM5301BS, BA7078AF, HY57V643220CT-7, MBM29PL3200BE70PFV, CXA3516R, SII1161BCTG100, HY57V161610DTC-8, LA4625

■ BA10393F (50 X DRIVE ASSY : IC1103) (50 Y DRIVE ASSY : IC2211)

- Comparator IC

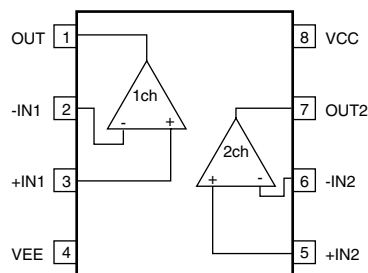
- **Pin Arrangement (Top View) / Block Diagram**



■ BA10358F (50 Y DRIVE ASSY : IC2406)

- Ope-Amp. IC

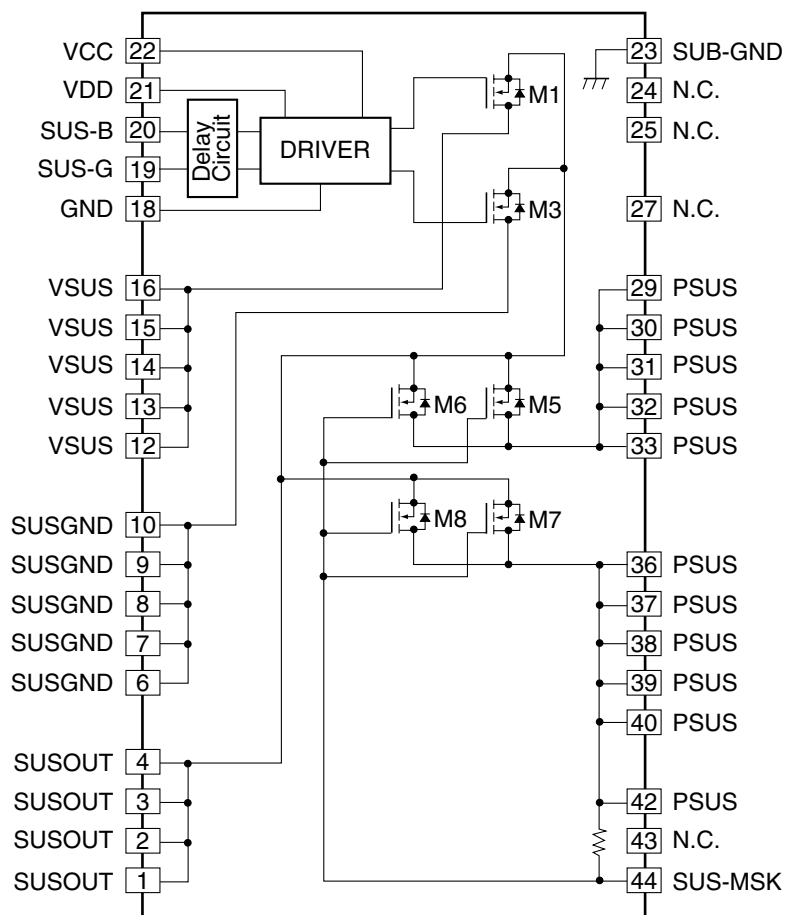
- **Pin Arrangement (Top View) / Block Diagram**



■ STK795-512 (50 X DRIVE ASSY : IC1203, IC1207)

- PDP Mask Module IC

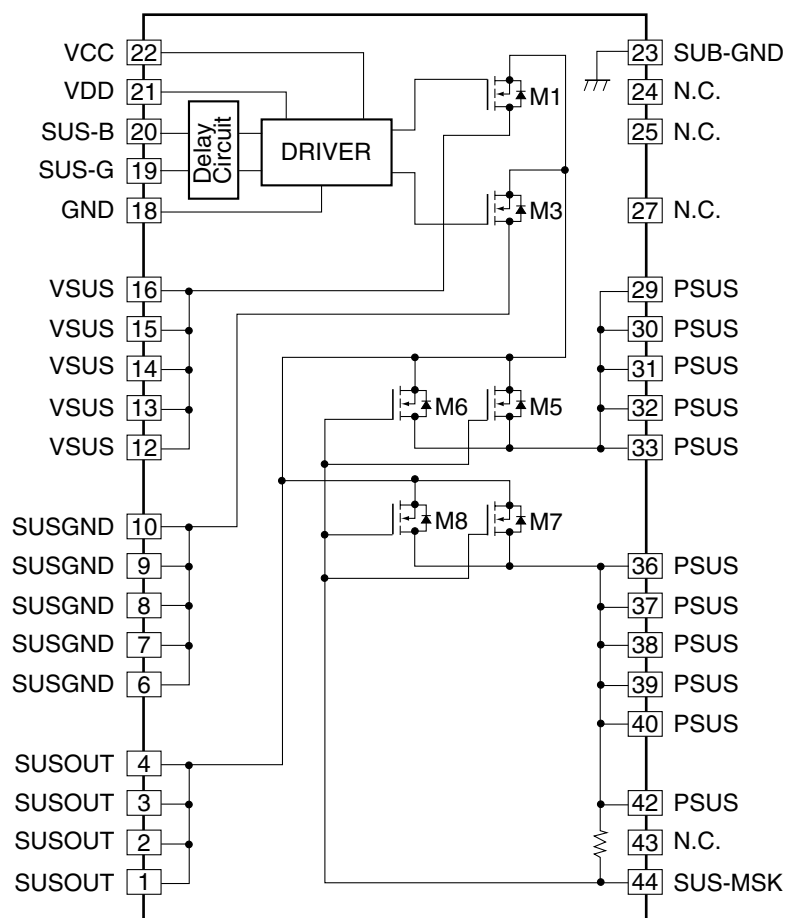
- **Block Diagram**



■ STK795-513 (50 Y DRIVE ASSY : IC2303, IC2307)

- PDP Mask Module IC

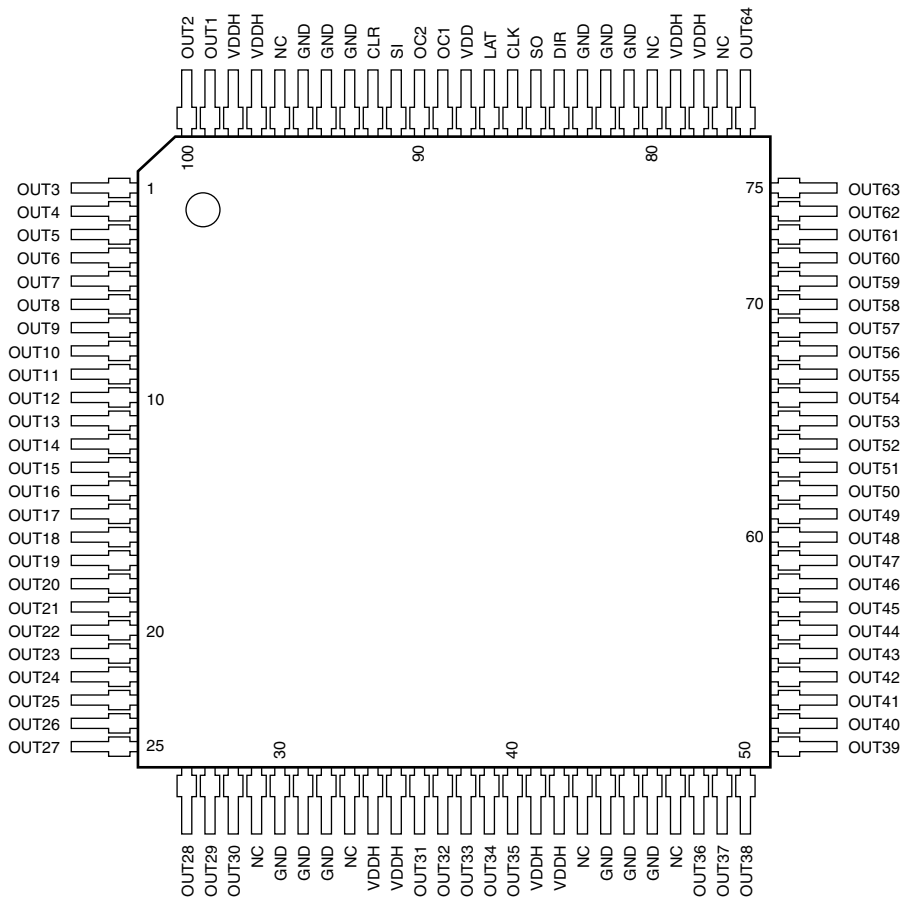
- **Block Diagram**



AN16003A (50 SCAN A ASSY : IC3001 - IC3006)
(50 SCAN B ASSY : IC3201 - IC3206)

• Plasma Display Panel IC

● Pin Arrangement (Top View)



● Pin Function

No.	Pin Name	Type	Function
1	OUT3	Output	High-voltage push-pull output pin
2	OUT4		
3	OUT5		
4	OUT6		
5	OUT7		
6	OUT8		
7	OUT9		
8	OUT10		
9	OUT11		
10	OUT12		

No.	Pin Name	Type	Function
11	OUT13	Output	High-voltage push-pull output pin
12	OUT14		
13	OUT15		
14	OUT16		
15	OUT17		
16	OUT18		
17	OUT19		
18	OUT20		
19	OUT21		
20	OUT22		
21	OUT23		
22	OUT24		
23	OUT25		
24	OUT26		
25	OUT27		
26	OUT28		
27	OUT29		
28	OUT30		
29	N.C	–	Not connected
30	GND	Ground	Ground pin
31	GND		
32	GND		
33	N.C	–	Not connected
34	VDDH	Supply	High-voltage circuit supply pin
35	VDDH		
36	OUT31	Output	High-voltage push-pull output pin
37	OUT32		
38	OUT33		
39	OUT34		
40	OUT35		
41	VDDH	Supply	High-voltage circuit supply pin
42	VDDH		
43	N.C	–	Not connected
44	GND	Ground	Ground pin
45	GND		
46	GND		
47	N.C	–	Not connected
48	OUT36	Output	High-voltage push-pull output pin
49	OUT37		
50	OUT38		
51	OUT39		
52	OUT40		
53	OUT41		
54	OUT42		
55	OUT43		
56	OUT44		
57	OUT45		
58	OUT46		
59	OUT47		
60	OUT48		

A

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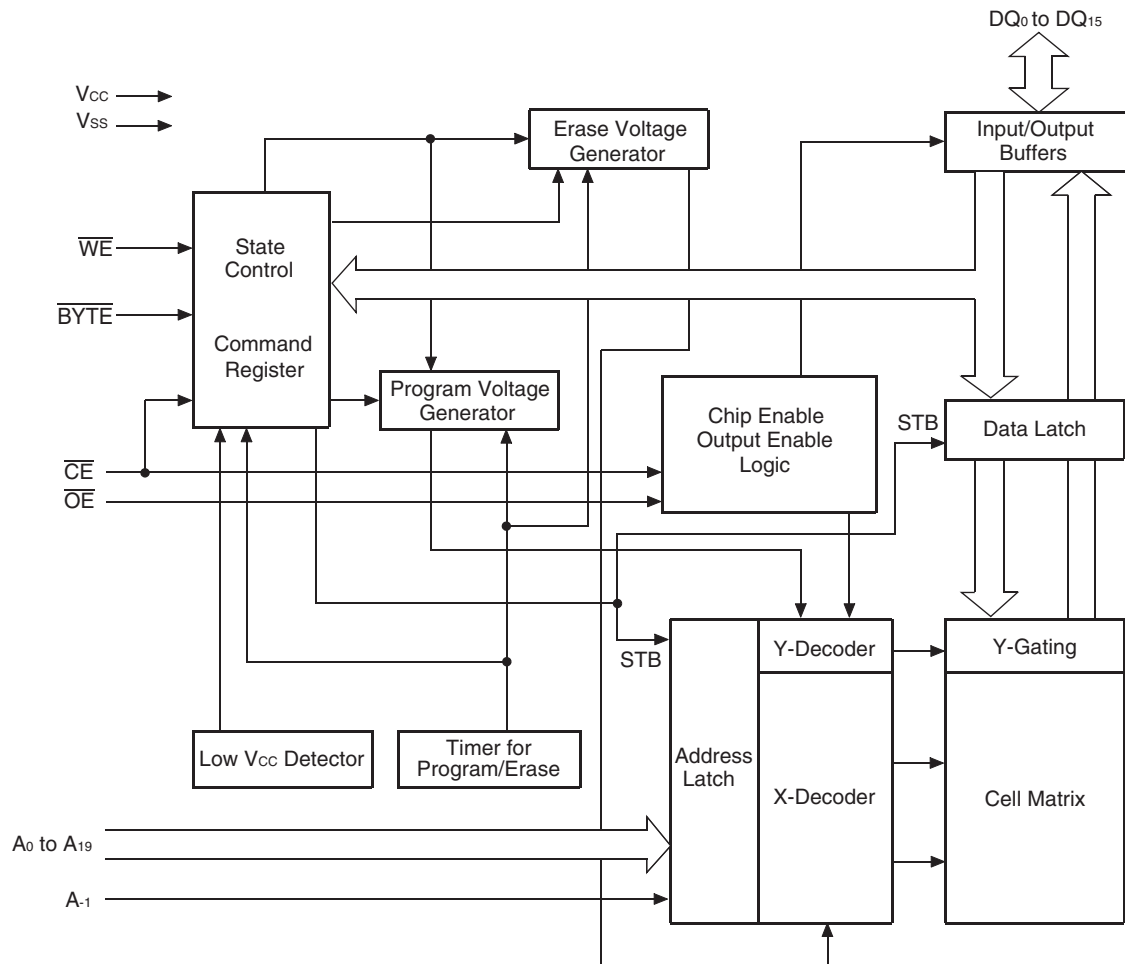
No.	Pin Name	Type	Function
61	OUT49	Output	High-voltage push-pull output pin
62	OUT50		
63	OUT51		
64	OUT52		
65	OUT53		
66	OUT54		
67	OUT55		
68	OUT56		
69	OUT57		
70	OUT58		
71	OUT59		
72	OUT60		
73	OUT61		
74	OUT62		
75	OUT63		
76	OUT64		
77	N.C	–	Not connected
78	VDDH	Supply	High-voltage circuit supply pin
79	VDDH		
80	N.C	–	Not connected
81	GND	Ground	Ground pin
82	GND		
83	GND		
84	DIR	Input	Setup pin of sift register sift direction L: Shift into reverse (SO → SI) H: Shift forward (SI → SO)
85	SO	Input / Output	Serial data input/output pin
86	CLK	Input	Serial clock input pin Fetch SI or SO data to sift register by CLK rise edge
87	LAT	Input	LAT data input pin L: Transfer shift register data to output latch H: Hold data to output latch
88	VDD	Supply	Logic supply pin
89	OC1	Input	Output control pin Control output according to the right truth value table
90	OC2		
91	SI	Input / Output	Serial data input/output pin
92	CLK	Input	All output reset pin CLK pin: L → Normal operation CLK pin: H → All output High
93	GND	Ground	Ground pin
94	GND		
95	GND		
96	N.C	–	Not connected
97	VDDH	Supply	High-voltage circuit supply pin
98	VDDH		
99	OUT1	Output	High-voltage push-pull output pin
100	OUT2		

OC1	OC1	OUT
L	L	ALL HiZ
L	H	DATA
H	L	ALL L
H	H	ALL H

■ MBM29L160BD-75PFTN (DIGITAL VIDEO ASSY : IC5305)

- Flash Memory IC

● Block Diagram



M30626FHPGP-P (DIGITAL VIDEO ASSY : IC5201)

• PDP μ COM

Pin Function

No.	Pin Name	Function	I/O	ACTIVE
1	VSUS	[D/A] Vofs power control	O	
2	VOFS	[D/A] Vofs power control	O	
3	TXD_IC4	3 serial communication with IC4MANTA - data transmission	O	
4	RXD_IC4	3 serial communication with IC4MANTA - data receive	I	
5	CLK_IC4	3 serial communication with IC4MANTA - clock output	O	
6	BYTE	(GND connection)	I	
7	CNVSS	Pin for processor mode setting (pull-down)	I	
8	NC	NC pin		
9	NC	NC pin		
10	RST_MD	Reset input	I	L
11	XOUT	Output for main clock	O	—
12	VSS	GND	—	—
13	XIN	Input for main clock	I	—
14	VCC1	Power supply = STB3.3V	—	—
15	NMI	(pull-up)	I	
16	REM_B	(Interruption) Remote control signal input (in the panel unit)	I	
17	KEY_B	(Interruption) Key signal input (in the panel unit)	I	
18	RST2	(Interruption) IC4 reset detection	I	L
19	HD_IN_B	HD signal existence distinction	I	L
20	PD_MUTE	Mute the power down output to the POWER SUPPLY Unit	O	L
21	PS_PD	PD signal in the POWER SUPPLY Unit	I	H
22	DCC_PD	PD signal of DC-DC converter	I	H
23	NC	NC pin		
24	NC	NC pin		
25	VD_IN	V. frequency count	I	L
26	EEPRST	EEPROM power SW	O	H
27	E_SCL	IIC clock output for EEPROM	O	
28	E_SDA	IIC data I/O for EEPROM	I/O	
29	TXD	Communication with flash ROM writer - data transmission	O	
30	RXD	Communication with flash ROM writer - data receive	I	
31	SCLK	Communication with flash ROM writer - clock input	I	
32	BUSY	Communication with flash ROM writer - busy output	O	
33	TXD0	UART communication with main UCOM (external PC) - data transmission	O	
34	RXD0	UART communication with main UCOM (external PC) - data receive	I	
35	NC	NC pin		
36	REQ_MD	Communication request to the main UCOM	O	H
37	PSW_D	Mute of DC-DC converter	O	H
38	WE_IC4	In IC4 (MANTA) rewriting, control for communication path switch	O	H
39	EPM	Setting pin for flash rewriting mode (pull-down)	I	
40	IC4_RST	IC4 forced reset	O	L
41	IC4_CE	Enable for IC4 communication	O	L
42	IC4_BUSY	Busy input for IC4 communication	I	H
43	REQ_IC4	Communication request from the IC4	I	H
44	CE	Setting pin for flash rewriting mode (pull-up)	I	
45	PSIZE	Panel size distinction	I	
46	B_SCL	IIC clock output for backup EEPROM	O	H
47	B_SDA	IIC DATA I/O for backup EEPROM	I/O	H
48	ADR_PD	PD signal of address junction	I	H
49	LED_G	Green LED control	O	L
50	LED_R	Red LED control	O	L

No.	Pin Name	Function	I/O	ACTIVE
51	DRV_OFF	Driving OFF	O	H
52	RELAY	Power ON control output	O	H
53	POWER	Power ON control input	I	H
54	MR_ST_B	MDR connection detection	I	L
55	OP_DET	Rear case open detection	I	
56	NC	NC pin		
57	PNL_MUTE	Panel mute	I	
58	DITHER	PC/VIDEO dither switch (panel module exclusive use)	I	
59	NC	NC pin		
60	VCC2	Power supply = STB 3.3V	—	—
61	PD_TRG	PD detection	I	L
62	VSS	GND	—	—
63	VH_PD	Vh power decrease PD	I	H
64	YDRV_PD	Y drive PD signal	I	H
65	YRES_PD	Y drive PD signal	I	H
66	YDCDC_PD	PD signal of Y drive DC-DC converter	I	H
67	IC5V_PD	5V power decrease PD	I	H
68	XSUS_PD	X drive PD signal	I	H
69	XDCDC_PD	PD signal of X drive DC-DC converter	I	H
70	XDRV_PD	X drive PD signal	I	H
71	NC	NC pin		
72	MR_AC	MR power monitor	I	H
73	AC_DET	AC power monitor at panel side (same signal as CST1)	I	L
74	DVI_MUTE	Mute of panel link output	O	H
75	A_MUTE	Audio mute	O	H
76	A_NG	Audio NG detection	I	L
77	A_SCL	IIC clock output for audio/others	O	L
78	A_SDA	IIC data I/O for audio/others	I/O	L
79	TRUBASS	TRUBASS ON/OFF	O	H
80	STB_SW	Standby setting of audio amp.	O	L
81	FOCUS	FOCUS ON/OFF	O	H
82	SRS	SRS ON/OFF	O	H
83	DDC_WP	DDCROM write protection	O	H
84	DVI_DET	DVI cable disconnection detection	I	H
85	RSTBTMDS	Reset detection of panel link receiver	I	L
86	L_SYNC	DE omission detection of the panel link	I	L
87	NC	NC pin		
88	NC	NC pin		
89	MASK1	[A/D] Mask display setting	I	
90	MAX_PLS2	[A/D] Brightness setting for panel module	I	
91	MAX_PLS1	[A/D] Brightness setting for panel module	I	
92	TEMP	[A/D] AD input for temperature sensor	I	
93	MODE	[A/D] Operation mode setting	I	
94	AVSS	GND for A/D input	—	—
95	MODEL	[A/D] CMX/HD/TV/WX distinction	I	
96	VREF	Reference voltage for A/D input	—	—
97	AVCC	Power supply for A/D input = STB3.3V	—	—
98	NC	NC pin		
99	NC	NC pin		
100	AMG_MD	Address emergency monitor	I	H

■ PD5856A (DIGITAL VIDEO ASSY : IC5401)

• PDP ASIC IC4

● Pin Function

A

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Ball No.	No.	Pin Name	Function
A1	1	BAI_6	A phase signal input of B video (sixth bit)
B1	2	BAI_5	A phase signal input of B video (fifth bit)
C1	3	BAI_4	A phase signal input of B video (fourth bit)
D1	4	NC	NC pin
E1	5	NC	NC pin
F1	6	BAI_3	A phase signal input of B video (fifth bit)
G1	7	BAI_2	A phase signal input of B video (fourth bit)
H1	8	FIELD	FIELD signal input
J1	9	XSUSB_12	X-Drive control signal output
K1	10	XSUSB_10	X-Drive control signal output
L1	11	XSUSB_4	X-Drive control signal output
M1	12	XSUSB_0	X-Drive control signal output
N1	13	XSUSA_10	X-Drive control signal output
P1	14	XSUSA_4	X-Drive control signal output
R1	15	XSUSA_2	X-Drive control signal output
T1	16	ADRS_0	Address control signal output
U1	17	AD6TXOUT3M	Address LVDS signal output
V1	18	AD6TXCLKOUTM	Address LVDS signal output
W1	19	AD6TXOUT2M	Address LVDS signal output
Y1	20	AD6TXOUT1M	Address LVDS signal output
AA1	21	AD6TXOUT0M	Address LVDS signal output
AB1	22	AD7TXOUT3M	Address LVDS signal output
AC1	23	AD7TXCLKOUTM	Address LVDS signal output
AD1	24	AD7TXOUT2M	Address LVDS signal output
AE1	25	AD7TXOUT1M	Address LVDS signal output
AF1	26	AD7TXOUT0M	Address LVDS signal output
AF2	27	AD7TXOUT0P	Address LVDS signal output
AF3	28	VSSLA	GND
AF4	29	AD3TXOUT3M	Address LVDS signal output
AF5	30	AD3TXCLKOUTM	Address LVDS signal output
AF6	31	AD3TXOUT2M	Address LVDS signal output
AF7	32	AD3TXOUT1M	Address LVDS signal output
AF8	33	AD3TXOUT0M	Address LVDS signal output
AF9	34	AD2TXOUT3M	Address LVDS signal output
AF10	35	AD2TXCLKOUTM	Address LVDS signal output
AF11	36	AD2TXOUT2M	Address LVDS signal output
AF12	37	AD2TXOUT1M	Address LVDS signal output
AF13	38	AD2TXOUT0M	Address LVDS signal output
AF14	39	AD1TXOUT3M	Address LVDS signal output
AF15	40	AD1TXCLKOUTM	Address LVDS signal output
AF16	41	AD1TXOUT2M	Address LVDS signal output
AF17	42	AD1TXOUT1M	Address LVDS signal output
AF18	43	AD1TXOUT0M	Address LVDS signal output
AF19	44	AD0TXOUT3M	Address LVDS signal output
AF20	45	AD0TXCLKOUTM	Address LVDS signal output
AF21	46	AD0TXOUT2M	Address LVDS signal output
AF22	47	AD0TXOUT1M	Address LVDS signal output
AF23	48	AD0TXOUT0M	Address LVDS signal output
AF24	49	VSSL15	GND
AF25	50	AD4TXOUT3P	Address LVDS signal output

Ball No.	No.	Pin Name	Function
AF26	51	AD4TXOUT3M	Address LVDS signal output
AE26	52	AD4TXCLKOUTM	Address LVDS signal output
AD26	53	AD4TXOUT2M	Address LVDS signal output
AC26	54	AD4TXOUT1M	Address LVDS signal output
AB26	55	AD4TXOUT0M	Address LVDS signal output
AA26	56	AD5TXOUT3M	Address LVDS signal output
Y26	57	AD5TXCLKOUTM	Address LVDS signal output
W26	58	AD5TXOUT2M	Address LVDS signal output
V26	59	AD5TXOUT1M	Address LVDS signal output
U26	60	AD5TXOUT0M	Address LVDS signal output
T26	61	SDIDBI_N	JTAG signal
R26	62	SDIJTAG	JTAG signal
P26	63	GPIO0_3	Microcomputer macro general-purpose port
N26	64	GPIO0_1	Microcomputer macro general-purpose port
M26	65	YSUSA_4	Y-Drive control signal output
L26	66	YSUSA_10	Y-Drive control signal output
K26	67	YSUSA_14	Y-Drive control signal output
J26	68	YSUSB_4	Y-Drive control signal output
H26	69	YSUSB_6	Y-Drive control signal output
G26	70	YSUSB_10	Y-Drive control signal output
F26	71	YSUSB_14	Y-Drive control signal output
E26	72	NC	NC pin
D26	73	NC	NC pin
C26	74	SCAN_10	Scan control signal output
B26	75	CSIoTxD	Communication with microcomputer
A26	76	CSRDN	Communication with microcomputer
A25	77	CSCSN0	Communication with microcomputer
A24	78	EXA16	Flash memory address bus
A23	79	EXA15	Flash memory address bus
A22	80	EXA14	Flash memory address bus
A21	81	EXA13	Flash memory address bus
A20	82	EXA12	Flash memory address bus
A19	83	EXA10	Flash memory address bus
A18	84	EXA7	Flash memory address bus
A17	85	EXA1	Flash memory address bus
A16	86	EXDIO_3	Flash memory data bus
A15	87	EXDIO_5	Flash memory data bus
A14	88	EXDIO_11	Flash memory data bus
A13	89	TRNSEND_O	NC pin
A12	90	RBI_5	B phase signal input of R video (fifth bit)
A11	91	RBI_0	B phase signal input of R video (0 bit)
A10	92	GBI_8	B phase signal input of G video (eighth bit)
A9	93	GBI_2	B phase signal input of G video (second bit)
A8	94	BBI_6	B phase signal input of B video (sixth bit)
A7	95	BBI_0	B phase signal input of B video (0 bit)
A6	96	VDI	VD signal input
A5	97	RAI_5	A phase signal input of R video (fifth bit)
A4	98	DCLKI	CLK input
A3	99	GAI_4	A phase signal input of G video (fourth bit)
A2	100	BAI_9	A phase signal input of B video (ninth bit)

A

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Ball No.	No.	Pin Name	Function
B2	101	BAI_8	A phase signal input of B video (eighth bit)
C2	102	BAI_7	A phase signal input of B video (seventh bit)
D2	103	GND	GND
E2	104	NC	NC
F2	105	NC	NC
G2	106	BAI_1	A phase signal input of B video (first bit)
H2	107	XSUSB_15	X-Drive control signal output
J2	108	GND	GND
K2	109	XSUSB_9	X-Drive control signal output
L2	110	XSUSB_3	X-Drive control signal output
M2	111	XSUSA_15	X-Drive control signal output
N2	112	XSUSA_9	X-Drive control signal output
P2	113	GND	GND
R2	114	XSUSA_1	X-Drive control signal output
T2	115	TEST2	Test signal input (Not used)
U2	116	AD6TXOUT3P	Address LVDS signal output
V2	117	AD6TXCLKOUTP	Address LVDS signal output
W2	118	AD6TXOUT2P	Address LVDS signal output
Y2	119	AD6TXOUT1P	Address LVDS signal output
AA2	120	AD6TXOUT0P	Address LVDS signal output
AB2	121	AD7TXOUT3P	Address LVDS signal output
AC2	122	AD7TXCLKOUTP	Address LVDS signal output
AD2	123	AD7TXOUT2P	Address LVDS signal output
AE2	124	AD7TXOUT1P	Address LVDS signal output
AE3	125	VSSLA	GND
AE4	126	AD3TXOUT3P	Address LVDS signal output
AE5	127	AD3TXCLKOUTP	Address LVDS signal output
AE6	128	AD3TXOUT2P	Address LVDS signal output
AE7	129	AD3TXOUT1P	Address LVDS signal output
AE8	130	AD3TXOUT0P	Address LVDS signal output
AE9	131	AD2TXOUT3P	Address LVDS signal output
AE10	132	AD2TXCLKOUTP	Address LVDS signal output
AE11	133	AD2TXOUT2P	Address LVDS signal output
AE12	134	AD2TXOUT1P	Address LVDS signal output
AE13	135	AD2TXOUT0P	Address LVDS signal output
AE14	136	AD1TXOUT3P	Address LVDS signal output
AE15	137	AD1TXCLKOUTP	Address LVDS signal output
AE16	138	AD1TXOUT2P	Address LVDS signal output
AE17	139	AD1TXOUT1P	Address LVDS signal output
AE18	140	AD1TXOUT0P	Address LVDS signal output
AE19	141	AD0TXOUT3P	Address LVDS signal output
AE20	142	AD0TXCLKOUTP	Address LVDS signal output
AE21	143	AD0TXOUT2P	Address LVDS signal output
AE22	144	AD0TXOUT1P	Address LVDS signal output
AE23	145	AD0TXOUT0P	Address LVDS signal output
AE24	146	VSSL15	GND
AE25	147	AD4TXCLKOUTP	Address LVDS signal output
AD25	148	AD4TXOUT2P	Address LVDS signal output
AC25	149	AD4TXOUT1P	Address LVDS signal output
AB25	150	AD4TXOUT0P	Address LVDS signal output

Ball No.	No.	Pin Name	Function
AA25	151	AD5TXOUT3P	Address LVDS signal output
Y25	152	AD5TXCLKOUTP	Address LVDS signal output
W25	153	AD5TXOUT2P	Address LVDS signal output
V25	154	AD5TXOUT1P	Address LVDS signal output
U25	155	AD5TXOUT0P	Address LVDS signal output
T25	156	SDITRST_N	JTAG signal
R25	157	RESETX	Reset input
P25	158	GND	GND
N25	159	GPIO0_0	Microcomputer macro general-purpose port
M25	160	YSUSA_5	Y-Drive control signal output
L25	161	YSUSA_11	Y-Drive control signal output
K25	162	YSUSA_15	Y-Drive control signal output
J25	163	GND	GND
H25	164	YSUSB_7	Y-Drive control signal output
G25	165	YSUSB_11	Y-Drive control signal output
F25	166	NC	NC pin
E25	167	NC	NC pin
D25	168	GND	GND
C25	169	SCAN_11	Scan control signal output
B25	170	CSIORXD	Communication with UCOM
B24	171	CSIOSCKI	Communication with UCOM
B23	172	UARTTXD	Communication with UCOM
B22	173	UARTRXD	Communication with UCOM
B21	174	CSWR_N0	Communication with UCOM
B20	175	GND	GND
B19	176	EXA9	Flash memory address bus
B18	177	EXA6	Flash memory address bus
B17	178	EXA0	Flash memory address bus
B16	179	GND	GND
B15	180	EXDIO_6	Flash memory data bus
B14	181	EXDIO_12	Flash memory data bus
B13	182	RBI_9	B phase signal input of R video (ninth bit)
B12	183	RBI_4	B phase signal input of R video (fourth bit)
B11	184	GND	GND
B10	185	GBI_7	B phase signal input of G video (seventh bit)
B9	186	GBI_1	B phase signal input of G video (first bit)
B8	187	BBI_5	B phase signal input of B video (fifth bit)
B7	188	GND	GND
B6	189	HDI	HD signal input
B5	190	RAI_4	A phase signal input of R video (fourth bit)
B4	191	GAI_9	A phase signal input of G video (ninth bit)
B3	192	GAI_3	A phase signal input of G video (third bit)
C3	193	GAI_2	A phase signal input of G video (second bit)
D3	194	VDDD33	3.3V power supply
E3	195	GAI_1	A phase signal input of G video (first bit)
F3	196	GAI_0	A phase signal input of G video (0 bit)
G3	197	NC	NC pin
H3	198	XSUSB_14	X-Drive control signal output
J3	199	VDDIO	3.3V power supply
K3	200	XSUSB_8	X-Drive control signal output

A

Ball No.	No.	Pin Name	Function
L3	201	XSUSB_2	X-Drive control signal output
M3	202	XSUSA_14	X-Drive control signal output
N3	203	XSUSA_8	X-Drive control signal output
P3	204	VDDIO	3.3V power supply
R3	205	XSUSA_0	X-Drive control signal output
T3	206	TEST1	Test signal input (Not used)
U3	207	VSSLA	GND
V3	208	VSSLA	GND
W3	209	VSSLA	GND
Y3	210	VSSLA	GND
AA3	211	VSSLA	GND
AB3	212	VSSLA	GND
AC3	213	VSSLA	GND
AD3	214	VSSLA	GND
AD4	215	VSSLA	GND
AD5	216	VSSLA	GND
AD6	217	VSSLA	GND
AD7	218	VSSLA	GND
AD8	219	VSSLA	GND
AD9	220	VSSLA	GND
AD10	221	VSSLA	GND
AD11	222	VSSLA	GND
AD12	223	VSSLA	GND
AD13	224	VSSLA	GND
AD14	225	VSSLA	GND
AD15	226	VSSLA	GND
AD16	227	VSSLA	GND
AD17	228	VSSLA	GND
AD18	229	VSSLA	GND
AD19	230	VSSLA	GND
AD20	231	VSSLA	GND
AD21	232	VSSLA	GND
AD22	233	VSSLA	GND
AD23	234	VSSLA	GND
AD24	235	VSSLA	GND
AC24	236	VSSLA	GND
AB24	237	VSSLA	GND
AA24	238	VSSLA	GND
Y24	239	VSSLA	GND
W24	240	VSSLA	GND
V24	241	VSSLA	GND
U24	242	VSSLA	GND
T24	243	SDITDO	JTAG signal
R24	244	GPIO0_7	Microcomputer macro general-purpose port
P24	245	VDDIO	3.3V power supply
N24	246	YSUSA_0	Y-Drive control signal output
M24	247	YSUSA_6	Y-Drive control signal output
L24	248	YSUSA_12	Y-Drive control signal output
K24	249	YSUSB_0	Y-Drive control signal output
J24	250	VDDD33	3.3V power supply

F

Ball No.	No.	Pin Name	Function
H24	251	YSUSB_8	Y-Drive control signal output
G24	252	NC	NC pin
F24	253	YSUSB_15	Y-Drive control signal output
E24	254	SCAN_3	Scan control signal output
D24	255	VDDD33	3.3V power supply
C24	256	SCAN_12	Scan control signal output
C23	257	SCAN_13	Scan control signal output
C22	258	SCAN_14	Scan control signal output
C21	259	SCAN_15	Scan control signal output
C20	260	VDDIO	3.3V power supply
C19	261	EXA8	Flash memory address bus
C18	262	EXA5	Flash memory address bus
C17	263	CLKD	CLK input (60MHz)
C16	264	VDDIO	3.3V power supply
C15	265	EXDIO_7	Flash memory data bus
C14	266	EXDIO_13	Flash memory data bus
C13	267	RBI_8	B phase signal input of R video (eighth bit)
C12	268	RBI_3	B phase signal input of R video (third bit)
C11	269	VDDIO	3.3V power supply
C10	270	GBI_6	B phase signal input of G video (sixth bit)
C9	271	GBI_0	B phase signal input of G video (0 bit)
C8	272	BBI_4	B phase signal input of B video (fourth bit)
C7	273	VDDIO	3.3V power supply
C6	274	RAI_9	A phase signal input of R video (ninth bit)
C5	275	RAI_3	A phase signal input of R video (third bit)
C4	276	GAI_8	A phase signal input of G video (eighth bit)
D4	277	GAI_7	A phase signal input of G video (seventh bit)
E4	278	GAI_6	A phase signal input of G video (sixth bit)
F4	279	GAI_5	A phase signal input of G video (fifth bit)
G4	280	VCMP	GND
H4	281	XSUSB_13	X-Drive control signal output
J4	282	XSUSB_11	X-Drive control signal output
K4	283	XSUSB_7	X-Drive control signal output
L4	284	XSUSB_1	X-Drive control signal output
M4	285	XSUSA_13	X-Drive control signal output
N4	286	XSUSA_7	X-Drive control signal output
P4	287	XSUSA_3	X-Drive control signal output
R4	288	ADRS_3	Address control signal output
T4	289	TESTAN	Test signal input (Not used)
U4	290	VDDLA	3.3V power supply
V4	291	VDDLA	3.3V power supply
W4	292	VDDLA	3.3V power supply
Y4	293	VDDLA	3.3V power supply
AA4	294	VDDLA	3.3V power supply
AB4	295	VDDLA	3.3V power supply
AC4	296	VDDLA	3.3V power supply
AC5	297	VDDLA	3.3V power supply
AC6	298	VDDLA	3.3V power supply
AC7	299	VDDLA	3.3V power supply
AC8	300	VDDLA	3.3V power supply

A

Ball No.	No.	Pin Name	Function
AC8	300	VDDLA	3.3V power supply
AC9	301	VDDLA	3.3V power supply
AC10	302	VDDLA	3.3V power supply
AC11	303	VDDLA	3.3V power supply
AC12	304	VDDLA	3.3V power supply
AC13	305	VDDLA	3.3V power supply
AC14	306	VDDBG	3.3V power supply
AC15	307	VDDLA	3.3V power supply
AC16	308	VDDLA	3.3V power supply
AC17	309	VDDLA	3.3V power supply
AC18	310	VDDLA	3.3V power supply
AC19	311	VDDLA	3.3V power supply
AC20	312	VDDLA	3.3V power supply
AC21	313	VDDLA	3.3V power supply
AC22	314	VDDLA	3.3V power supply
AC23	315	VDDLA	3.3V power supply
AB23	316	VDDLA	3.3V power supplyv
AA23	317	VDDLA	3.3V power supply
Y23	318	VDDLA	3.3V power supply
W23	319	VDDLA	3.3V power supply
V23	320	VDDLA	3.3V power supply
U23	321	VDDLA	3.3V power supply
T23	322	SDITDI	JTAG signal
R23	323	GPIO0_6	Microcomputer macro general-purpose port
P23	324	GPIO0_2	Microcomputer macro general-purpose port
N23	325	YSUSA_1	Y-Drive control signal output
M23	326	YSUSA_7	Y-Drive control signal output
L23	327	YSUSA_13	Y-Drive control signal output
K23	328	YSUSB_1	Y-Drive control signal output
J23	329	YSUSB_5	Y-Drive control signal output
H23	330	YSUSB_9	Y-Drive control signal output
G23	331	VCMP	GND
F23	332	SCAN_0	Scan control signal output
E23	333	SCAN_4	Scan control signal output
D23	334	SCAN_7	Scan control signal output
D22	335	SCAN_8	Scan control signal output
D21	336	SCAN_9	Scan control signal output
D20	337	EXA11	Flash memory address bus
D19	338	EXA19	Flash memory address bus
D18	339	EXA4	Flash memory address bus
D17	340	EXDIO_0	Flash memory data bus
D16	341	EXDIO_4	Flash memory data bus
D15	342	EXDIO_8	Flash memory data bus
D14	343	EXDIO_14	Flash memory data bus
D13	344	RBI_7	B phase signal input of R video (seventh bit)
D12	345	RBI_2	B phase signal input of R video (second bit)
D11	346	GBI_9	B phase signal input of G video (ninth bit)
D10	347	GBI_5	B phase signal input of G video (fifth bit)
D9	348	BBI_9	B phase signal input of B video (ninth bit)
D8	349	BBI_3	B phase signal input of B video (tenth bit)

F

Ball No.	No.	Pin Name	Function
D7	350	DEI	DE signal input
D6	351	RAI_8	A phase signal input of R video (eighth bit)
D5	352	RAI_2	A phase signal input of R video (second bit)
E5	353	RAI_1	A phase signal input of R video (first bit)
F5	354	RAI_0	A phase signal input of R video (0 bit)
G5	355	BAI_0	A phase signal input of B video (0 bit)
H5	356	VSS15	GND
J5	357	VDDHR	3.3V power supply
K5	358	XSUSB_6	X-Drive control signal output
L5	359	VSSD15	GND
M5	360	XSUSA_12	X-Drive control signal output
N5	361	XSUSA_6	X-Drive control signal output
P5	362	VSS15	GND
R5	363	ADRS_2	Address control signal output
T5	364	TESTBN	Test signal input (Not used)
U5	365	VSSL15	GND
V5	366	VSSLA	GND
W5	367	VSSLA	GND
Y5	368	VSSL15	GND
AA5	369	VDDL15	3.3V power supply
AB5	370	VSSL15	GND
AB6	371	VSSLA	GND
AB7	372	VSSLA	GND
AB8	373	VSSL15	GND
AB9	374	VSSLA	GND
AB10	375	VSSLA	GND
AB11	376	VSSL15	GND
AB12	377	VSSLA	GND
AB13	378	VSSLA	GND
AB14	379	REFRIN	Reference current generation
AB15	380	VSSBG	GND
AB16	381	VSSL15	GND
AB17	382	VSSLA	GND
AB18	383	VSSLA	GND
AB19	384	VSSL15	GND
AB20	385	VSSLA	GND
AB21	386	VSSLA	GND
AB22	387	VSSLA	GND
AA22	388	VDDL15	3.3V power supply
Y22	389	VSSL15	GND
W22	390	VSSLA	GND
V22	391	VSSLA	GND
U22	392	VSSL15	GND
T22	393	SDITMS	JTAG signal
R22	394	GPIO0_5	Microcomputer macro general-purpose port
P22	395	VSS15	GND
N22	396	YSUSA_2	Y-Drive control signal output
M22	397	YSUSA_8	Y-Drive control signal output
L22	398	VSSD15	GND
K22	399	YSUSB_2	Y-Drive control signal output

A

Ball No.	No.	Pin Name	Function
J22	400	VDDHL	3.3V power supply
H22	401	VSSD15	GND
G22	402	YSUSB_12	Y-Drive control signal output
F22	403	SCAN_1	Scan control signal output
E22	404	SCAN_5	Scan control signal output
E21	405	SCAN_6	Scan control signal output
E20	406	VSS15	GND
E19	407	EXA18	Flash memory address bus
E18	408	EXA3	Flash memory address bus
E17	409	EXDIO_1	Flash memory data bus
E16	410	VSS15	GND
E15	411	EXDIO_9	Flash memory data bus
E14	412	EXDIO_15	Flash memory data bus
E13	413	RBI_6	B phase signal input of R video (sixth bit)
E12	414	CLKS	CLK input (85MHz)
E11	415	VSS15	GND
E10	416	GBI_4	B phase signal input of G video (fourth bit)
E8	418	BBI_2	B phase signal input of B video (second bit)
E9	417	BBI_8	B phase signal input of B video (eighth bit)
E7	419	VSS15	GND
E6	420	RAI_7	A phase signal input of R video (seventh bit)
F6	421	RAI_6	A phase signal input of R video (sixth bit)
G6	422	APL_DT	APL value trigger input
H6	423	VDD15	1.5V power supply
J6	424	VBB	VBB power monitor in the DRAM
K6	425	XSUSB_5	X-Drive control signal output
L6	426	VDDD15	1.5V power supply
M6	427	XSUSA_11	X-Drive control signal output
N6	428	XSUSA_5	X-Drive control signal output
P6	429	VDD15	1.5V power supply
R6	430	ADRS_1	Address control signal output
T6	431	TESTCN	Test signal input (Not used)
U6	432	VDDL15	1.5V power supply
V6	433	VDDLA	3.3V power supply
W6	434	VDDLA	3.3V power supply
Y6	435	VDDL15	1.5V power supply
AA6	436	VDDLA	3.3V power supply
AA7	437	VDDLA	3.3V power supply
AA8	438	VDDL15	1.5V power supply
AA9	439	VDDLA	3.3V power supply
AA10	440	VDDLA	3.3V power supply
AA11	441	VDDL15	1.5V power supply
AA12	442	VDDLA	3.3V power supply
AA13	443	VDDLA	3.3V power supply
AA14	444	VDDLA	3.3V power supply
AA15	445	VDDLA	3.3V power supply
AA16	446	VDDL15	1.5V power supply
AA17	447	VDDLA	3.3V power supply
AA18	448	VDDLA	3.3V power supply
AA19	449	VDDL15	1.5V power supply

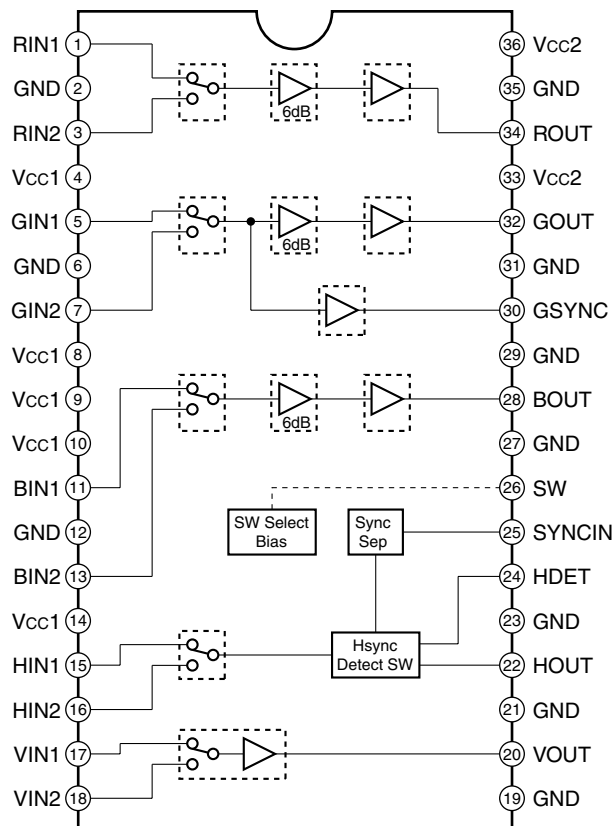
F

Ball No.	No.	Pin Name	Function
AA20	450	VDDLA	3.3V power supply
AA21	451	VDDLA	3.3V power supply
Y21	452	VDDL15	1.5V power supply
W21	453	VDDLA	3.3V power supply
V21	454	VDDLA	3.3V power supply
U21	455	VDDL15	1.5V power supply
T21	456	SDITCK	JTAG signal
R21	457	GPIO0_4	Microcomputer macro general-purpose port
P21	458	VDD15	1.5V power supply
N21	459	YSUSA_3	Y-Drive control signal output
M21	460	YSUSA_9	Y-Drive control signal output
L21	461	VDDD15	1.5V power supply
K21	462	YSUSB_3	Y-Drive control signal output
J21	463	VBB	VBB power monitor in the DRAM
H21	464	VDDD15	1.5V power supply
G21	465	YSUSB_13	Y-Drive control signal output
F21	466	SCAN_2	Scan control signal output
F20	467	VDD15	1.5V power supply
F19	468	EXA17	Flash memory address bus
F18	469	EXA2	Flash memory address bus
F17	470	EXDIO_2	Flash memory data bus
F16	471	VDD15	1.5V power supply
F15	472	EXDIO_10	Flash memory data bus
F14	473	TRNSEND_I	NC pin
F13	474	VDD15	1.5V power supply
F12	475	RBI_1	B phase signal input of R video (first bit)
F11	476	VDD15	1.5V power supply
F10	477	GBI_3	B phase signal input of G video (third bit)
F9	478	BBI_7	B phase signal input of B video (seventh bit)
F8	479	BBI_1	B phase signal input of B video (first bit)
F7	480	VDD15	1.5V power supply

AN5870SB (RGB ASSY : IC6402)
(AV I/O ASSY : IC7610, IC7613)
(VIDEO SLOT1 ASSY : IC7902)
(VIDEO SLOT2 ASSY : IC7902)

- Wide Band Analog SW

● **Pin Arrangement / Block Diagram**



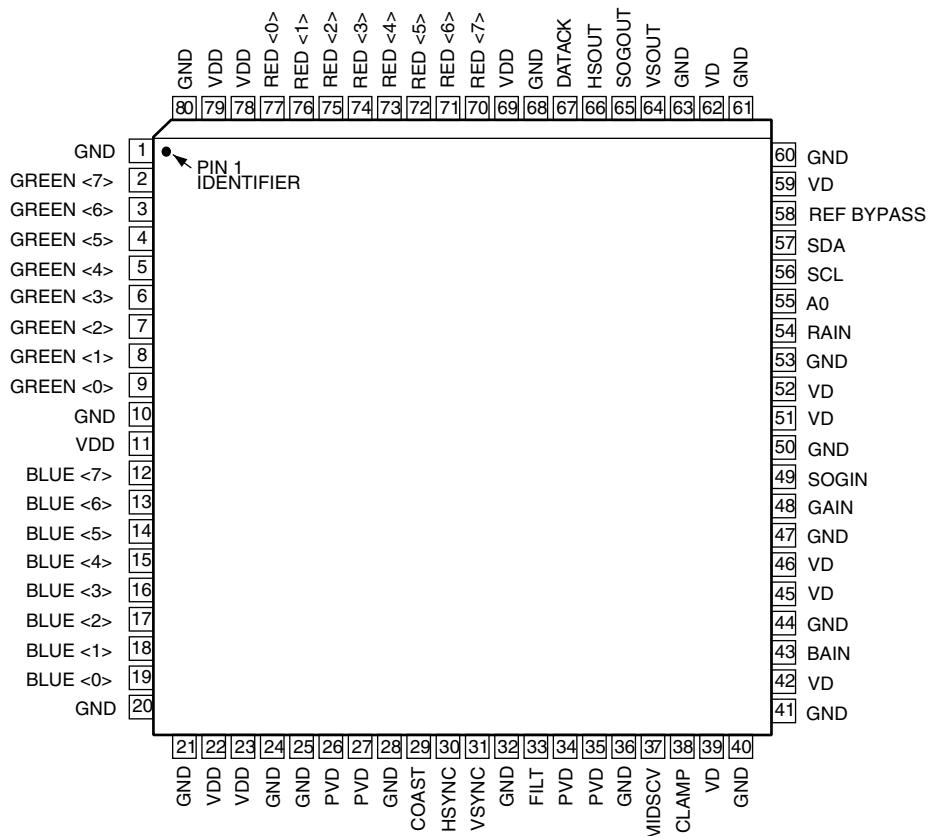
● **Pin Function**

No.	Name	Function	No.	Name	Function
1	RIN1	R input 1	19	GND	Ground (HV, HSEP, SW)
2	GND	Ground (R)	20	VOUT	V output
3	RIN2	R input 2	21	GND	Ground
4	Vcc1	5V (GSYNC)	22	HOUT	H output
5	GIN1	G input 1	23	GND	Ground
6	GND	Ground (G)	24	HDET	H detect
7	GIN2	G input 2	25	SYNCIN	Sync input
8	Vcc1	5V (R)	26	SW	SW
9	Vcc1	5V (G)	27	GND	Ground
10	Vcc1	5V (B)	28	BOUT	B output
11	BIN1	B input 1	29	GND	Ground (RGB)
12	GND	Ground (B)	30	GSYNC	GSync output
13	BIN2	B input 2	31	GND	Ground (RGB)
14	Vcc1	5V (HV, HSEP, SW)	32	GOUT	G output
15	HIN1	H input 1	33	Vcc2	12V (RGB)
16	HIN2	H input 2	34	ROUT	R output
17	VIN1	V input 1	35	GND	Ground
18	VIN2	V input 2	36	Vcc2	12V (RGB)

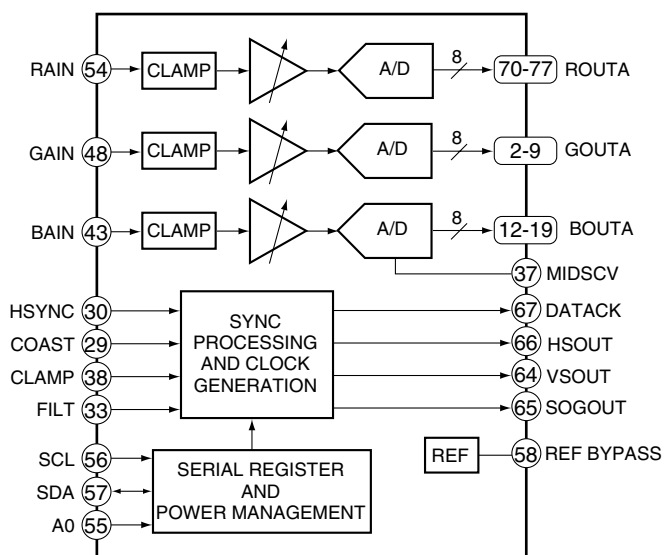
AD9883AKST-110 (RGB ASSY : IC6602)

• 110 MSPS Analog Interface

Pin Arrangement (Top View)



Block Diagram



● Pin Function

A

No.	Pin Name	I/O	Pin Function
1	GND	–	Ground
2	GREEN 7	O	Converter Green output (MSB)
3	GREEN 6	O	Converter Green output
4	GREEN 5	O	Converter Green output
5	GREEN 4	O	Converter Green output
6	GREEN 3	O	Converter Green output
7	GREEN 2	O	Converter Green output
8	GREEN 1	O	Converter Green output
9	GREEN 0	O	Converter Green output
10	GND	–	Ground
11	VDD	–	Power supply (3.3V)
12	BLUE 7	O	Converter Blue output (MSB)
13	BLUE 6	O	Converter Blue output
14	BLUE 5	O	Converter Blue output
15	BLUE 4	O	Converter Blue output
16	BLUE 3	O	Converter Blue output
17	BLUE 2	O	Converter Blue output
18	BLUE 1	O	Converter Blue output
19	BLUE 0	O	Converter Blue output
20	GND	–	Ground
21	GND	–	Ground
22	VDD	–	Power supply (3.3V)
23	VDD	–	Power supply (3.3V)
24	GND	–	Ground
25	GND	–	Ground
26	PVD	–	PLL power supply (3.3V)
27	PVD	–	PLL power supply (3.3V)
28	GND	–	Ground
29	COAST	I	PLL COAST signal input
30	HSYNC	I	Horizontal sync. input
31	VSNC	I	Vertical sync. input
32	GND	–	Ground
33	FILT	–	External filter connection pin for built-in PLL
34	PVD	–	PLL power supply (3.3V)
35	PVD	–	PLL power supply (3.3V)
36	GND	–	Ground
37	MIDSCV	–	Internal middle scale voltage bias
38	CLAMP	I	Clamp input (External clamp signal)
39	VD	–	Analog power supply (3.3V)
40	GND	–	Ground
41	GND	–	Ground
42	VD	–	Analog power supply (3.3V)
43	BAIN	I	Analog input for converter B
44	GND	–	Ground
45	VD	–	Analog power supply (3.3V)

F

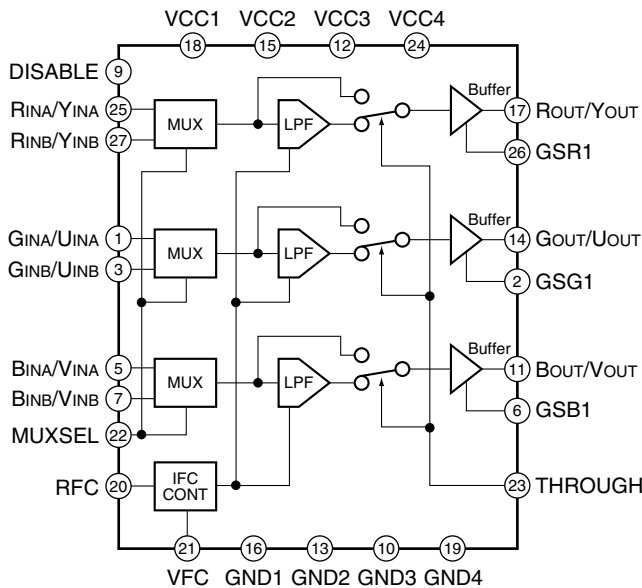
No.	Pin Name	I/O	Pin Function
46	VD	–	Analog power supply (3.3V)
47	GND	–	Ground
48	GAIN	I	Analog input for converter G
49	SOGIN	I	Input for Sync-on Green
50	GND	–	Ground
51	VD	–	Analog power supply (3.3V)
52	VD	–	Analog power supply (3.3V)
53	GND	–	Ground
54	RAIN	I	Analog input for converter R
55	A0	I	Address input 1 of serial port
56	SCL	I	Data clock (max. 100kHz) of serial port
57	SDA	I/O	Data input/output of serial port
58	REF BYPASS	–	Internal reference bypass
59	VD	–	Analog power supply (3.3V)
60	GND	–	Ground
61	GND	–	Ground
62	VD	–	Analog power supply (3.3V)
63	GND	–	Ground
64	VSOUT	O	VSYS output (phasing with DATACLK)
65	SOGOUT	O	Sync-on-Green slicer output
66	HSOUT	O	HSYS output (phasing with DATACLK)
67	DATACLK	O	Data input/output clock
68	GND	–	Ground
69	VDD	–	Power supply (3.3V)
70	RED 7	O	Converter Red output (MSB)
71	RED 6	O	Converter Red output
72	RED 5	O	Converter Red output
73	RED 4	O	Converter Red output
74	RED 3	O	Converter Red output
75	RED 2	O	Converter Red output
76	RED 1	O	Converter Red output
77	RED 0	O	Converter Red output
78	VDD	–	Power supply (3.3V)
79	VDD	–	Power supply (3.3V)
80	GND	–	Ground

■ **SM5301BS (RGB ASSY : IC6601)**

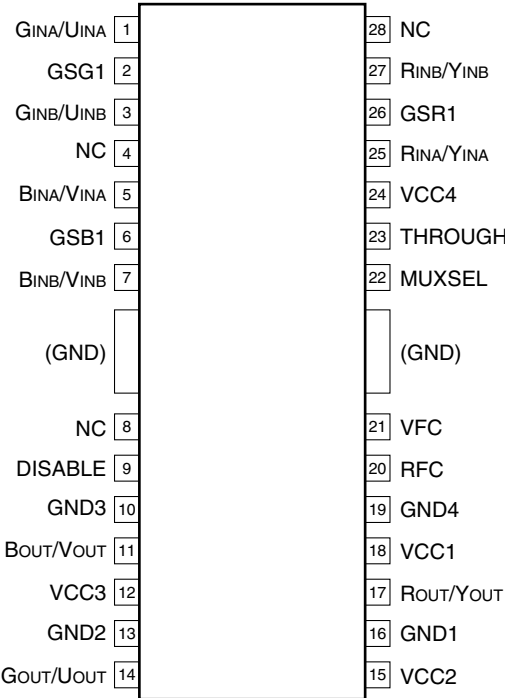
• Video Filter

A

● **Block Diagram**



● **Pin Arrangement (Top View)**



C

D

E

F

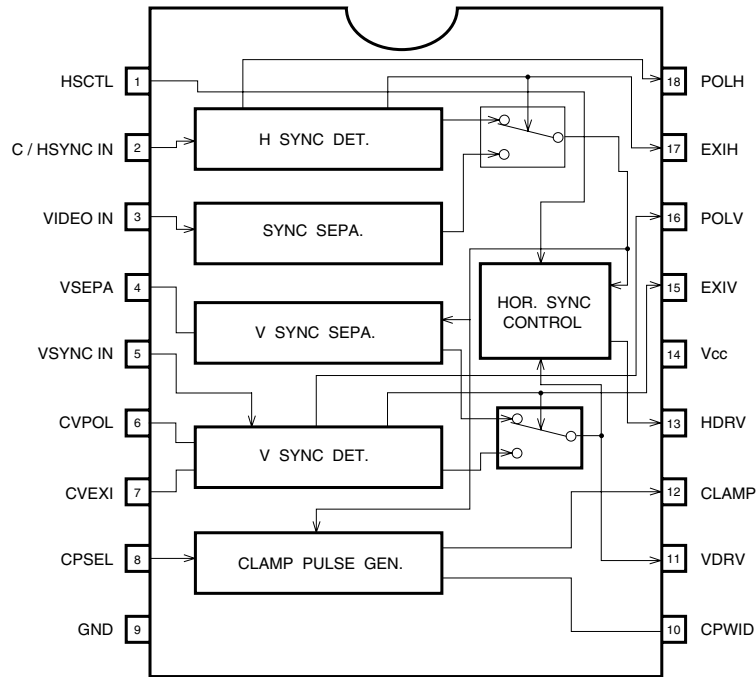
● Pin Function

No.	Pin Name	I/O	Pin Function
1	GINA/UINA	I	Analog GINA or UINA signal input. Sync signal is input on SYNCIN pin.
2	GSG1	I	GOUT/UOUT output buffer gain set input
3	GINB/UINB	I	Analog GINB or UINB signal input. Sync signal is input on SYNCIN pin.
4	(NC)	–	No connection
5	BINA/VINA	I	Analog BINA or VINA signal input. Sync signal is input on SYNCIN pin.
6	GSB1	I	BOUT/VOUT output buffer gain set input
7	BINB/VINB	I	Analog BINB or VINB signal input. Sync signal is input on SYNCIN pin.
8	(NC)	–	No connection
9	DISABLE	I	Power save function. Built-in pull-down resistor. L : Enable H : Disable (Output pins: ROUT/YOUT, GOUT/UOUT, and BOUT/VOUT are high impedance.)
10	GND3	–	Analog ground
11	BOUT/VOUT	O	B/V signal output
12	VCC3	–	Analog 5V supply
13	GND2	–	Analog ground
14	GOUT/UOUT	O	G/U signal output
15	VCC2	–	Analog 5V supply
16	GND1	–	Analog ground
17	ROUT/YOUT	O	R/Y signal output
18	VCC1	–	Analog 5V supply
19	GND4	–	Analog ground
20	RFC	–	LPF (lowpass filter) cutoff frequency setting resistor connection
21	VFC	I	LPF (lowpass filter) cutoff frequency setting voltage input
22	MUXSEL	I	Input select signal. Built-in pull-down resistor. L : XINA pin select H : XINB pin select
23	THROUGH	I	Filter through Built-in pull-down resistor. L : Filter function H : Filter through (buffer only)
24	VCC4	–	Analog 5V supply
25	RINA/YINA	I	Analog RINA or YINA signal input. Sync signal is input on SYNCIN pin.
26	GSR1	I	ROUT/YOUT output buffer gain set input
27	RINB/YINB	I	Analog RINB or YINB signal input. Sync signal is input on SYNCIN pin.
28	(NC)	–	No connection

BA7078AF (RGB ASSY : IC6604)

- Synchronous seperation IC

● Block Diagram



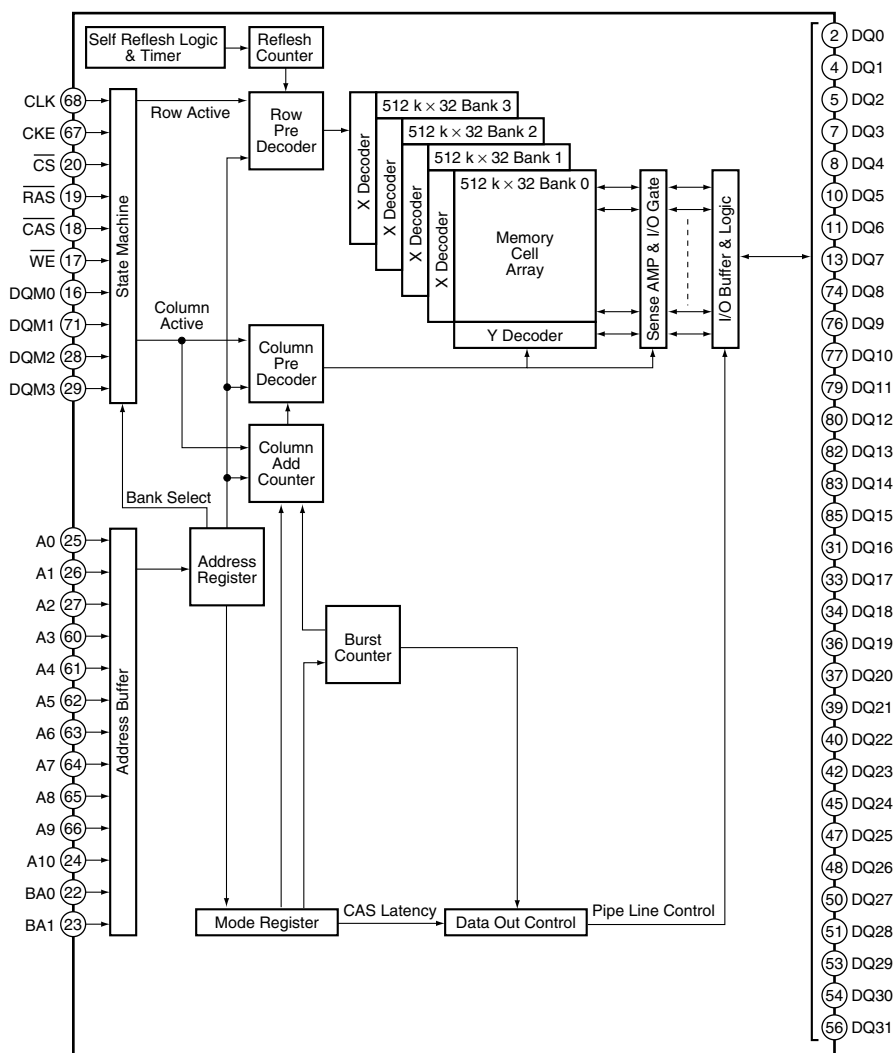
● Pin Function

No.	Pin Name	Pin Function
1	HSCTL	HDRV output Used to select whether to output the VDRV section of the HDRV output signal. High : VDRV section of HDRV is output Low : VDRV section of HDRV is not output
2	C/HSYNC IN	Composite sync / H SYNC input Input either the composite synchronization signal or the horizontal synchronization signal. Input is clamped, and is initiated by capacitor coupling.
3	VIDEO IN	SYNC ON VIDEO input Inputs the SYNC ON VIDEO signal(green). Input is sink chip clamped. Input is initiated by capacitor coupling.
4	VSEPA	f-V conversion Converts the horizontal synchronization signal frequency into a voltage. The voltage generated is proportional to the frequency of the horizontal synchronization signal. Attach a 0.56 μ F capacitor between the ground pins.
5	VSIN	V SYNC input Inputs the vertical synchronization signal.
6	CVPOL	Vertical polarity integration Integrates the vertical synchronization signal polarity detection circuit. Attach a 1.5 μ F capacitor between this pin and the ground.
7	CVEXI	Vertical existence integration Integrates the vertical synchronization signal existence detection circuit. Attach a 1 μ F capacitor between this pin and the ground.
8	CPSEL	Setting the clamp position Used to set the clamp pulse generation position to either the front or back edge of HSYNC High : The front edge is the generation position Open : Composite / H SYNC IN : The front edge is the generation position VIDEO IN : The back edge is the generation position Low : The back edge is the generation position
9	GND	Ground
10	CPWID	Setting the clamp pulse width Sets the clamp pulse width according to the attached time constant. Attach a resistor between this pin and VCC and, a capacitor between this pin and GND. When R = 3.9k Ω and C = 100pF, pulse width is approximately 400 ns. Set the resistor to register an abnormality at 1k Ω .
11	VDRV	VDRV output Outputs the vertical synchronization signal. The output signal has positive polarity.
12	CLAMP	Clamp output Outputs the clamp pulse generated from the vertical synchronization signal. The output signal has a positive polarity.
13	HDRV	HDRV output Outputs the clamp pulse generated from the horizontal synchronization signal. The output signal has positive polarity.
14	Vcc	Power supply
15	EXIV	Vertical existence output Indicates whether the vertical synchronization signal exists.
16	POLV	Vertical polarity output Indicates the polarity of the vertical synchronization signal.
17	EXIH	Horizontal existence output Indicates whether the horizontal synchronization signal exists.
18	POLH	Horizontal polarity output Indicates the polarity of the horizontal synchronization signal.

HY57V643220CT-7 (RGB ASSY : IC7001, IC7002)

• Synchronous DRAM

Block Diagram



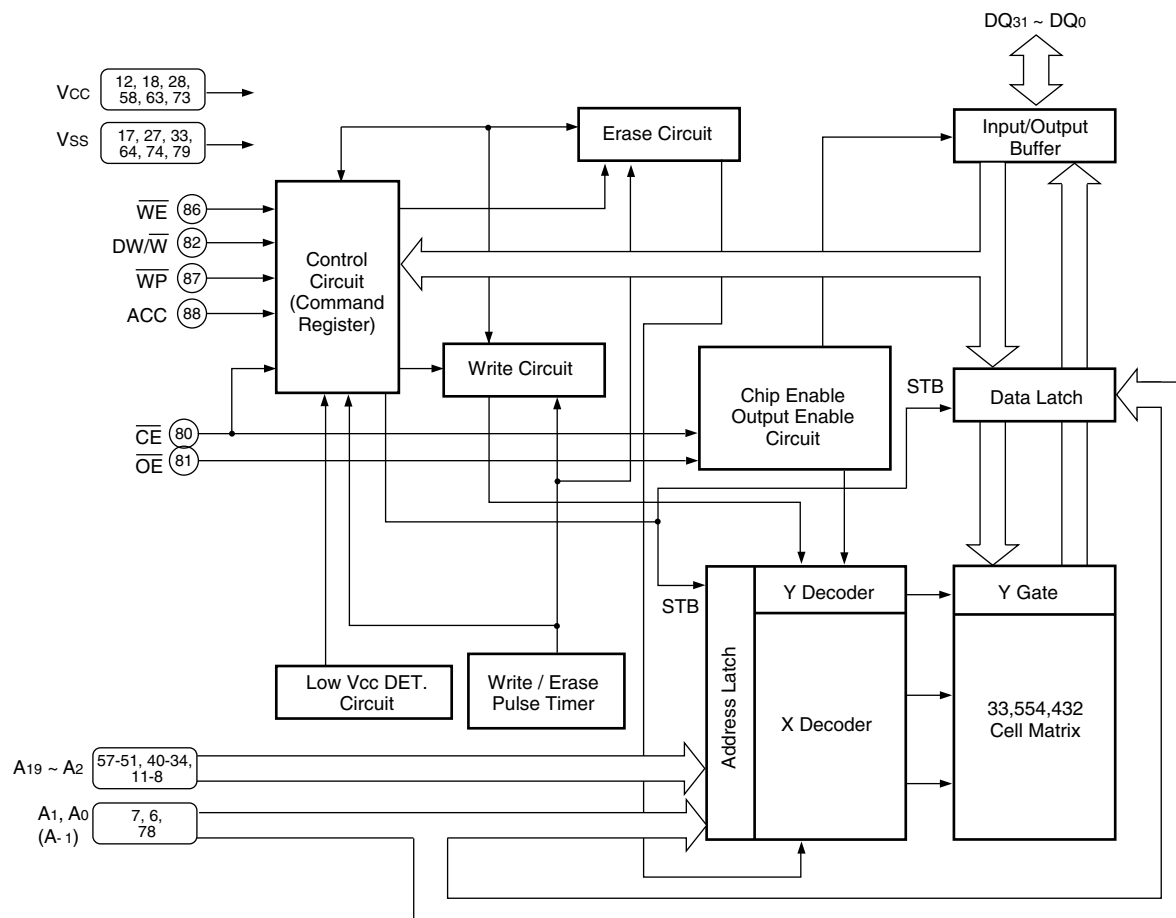
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply	44	VSS	–	Ground
2	DQ0	I/O	Data input/output	45	DQ24	I/O	Data input/output
3	VDDQ	–	Power supply for output buffer	46	VSSQ	–	Ground for output buffer
4	DQ1	I/O	Data input/output	47	DQ25	I/O	Data input/output
5	DQ2	I/O	Data input/output	48	DQ26	I/O	Data input/output
6	VSSQ	–	Ground for output buffer	49	VDDQ	–	Power supply for output buffer
7	DQ3	I/O	Data input/output	50	DQ27	I/O	Data input/output
8	DQ4	I/O	Data input/output	51	DQ28	I/O	Data input/output
9	VDDQ	–	Power supply for output buffer	52	VSSQ	–	Ground for output buffer
10	DQ5	I/O	Data input/output	53	DQ29	I/O	Data input/output
11	DQ6	I/O	Data input/output	54	DQ30	I/O	Data input/output
12	VSSQ	–	Ground for output buffer	55	VDDQ	–	Power supply for output buffer
13	DQ7	I/O	Data input/output	56	DQ31	I/O	Data input/output
14	NC	–	No connection	57	NC	–	No connection
15	VDD	–	Power supply	58	VSS	–	Ground
16	DQM0	I	Data input/output mask	59	DQM3	I	Data input/output mask
17	/WE	I	Write enable	60	A3	I	Address input
18	/CAS	I	Column address strobe	61	A4	I	Address input
19	/RAS	I	Row address strobe	62	A5	I	Address input
20	/CS	I	Chip select input	63	A6	I	Address input
21	NC	–	No connection	64	A7	I	Address input
22	BA0	I	Bank address input	65	A8	I	Address input
23	BA1	I	Bank address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	NC	–	No connection
27	A2	I	Address input	70	NC	–	No connection
28	DQM2	I	Data input/output mask	71	DQM1	I	Data input/output mask
29	VDD	–	Power supply	72	VSS	–	Ground
30	NC	–	No connection	73	NC	–	No connection
31	DQ16	I/O	Data input/output	74	DQ8	I/O	Data input/output
32	VSSQ	–	Ground for output buffer	75	VDDQ	–	Power supply for output buffer
33	DQ17	I/O	Data input/output	76	DQ9	I/O	Data input/output
34	DQ18	I/O	Data input/output	77	DQ10	I/O	Data input/output
35	VDDQ	–	Power supply for output buffer	78	VSSQ	–	Ground for output buffer
36	DQ19	I/O	Data input/output	79	DQ11	I/O	Data input/output
37	DQ20	I/O	Data input/output	80	DQ12	I/O	Data input/output
38	VSSQ	–	Ground for output buffer	81	VDDQ	–	Power supply for output buffer
39	DQ21	I/O	Data input/output	82	DQ13	I/O	Data input/output
40	DQ22	I/O	Data input/output	83	DQ14	I/O	Data input/output
41	VDDQ	–	Power supply for output buffer	84	VSSQ	–	Ground for output buffer
42	DQ23	I/O	Data input/output	85	DQ15	I/O	Data input/output
43	VDD	–	Power supply	86	VSS	–	Ground

■ MBM29PL3200BE70PFV (RGB ASSY : IC7152)

- Page Mode Flash Memory

- **Block Diagram**



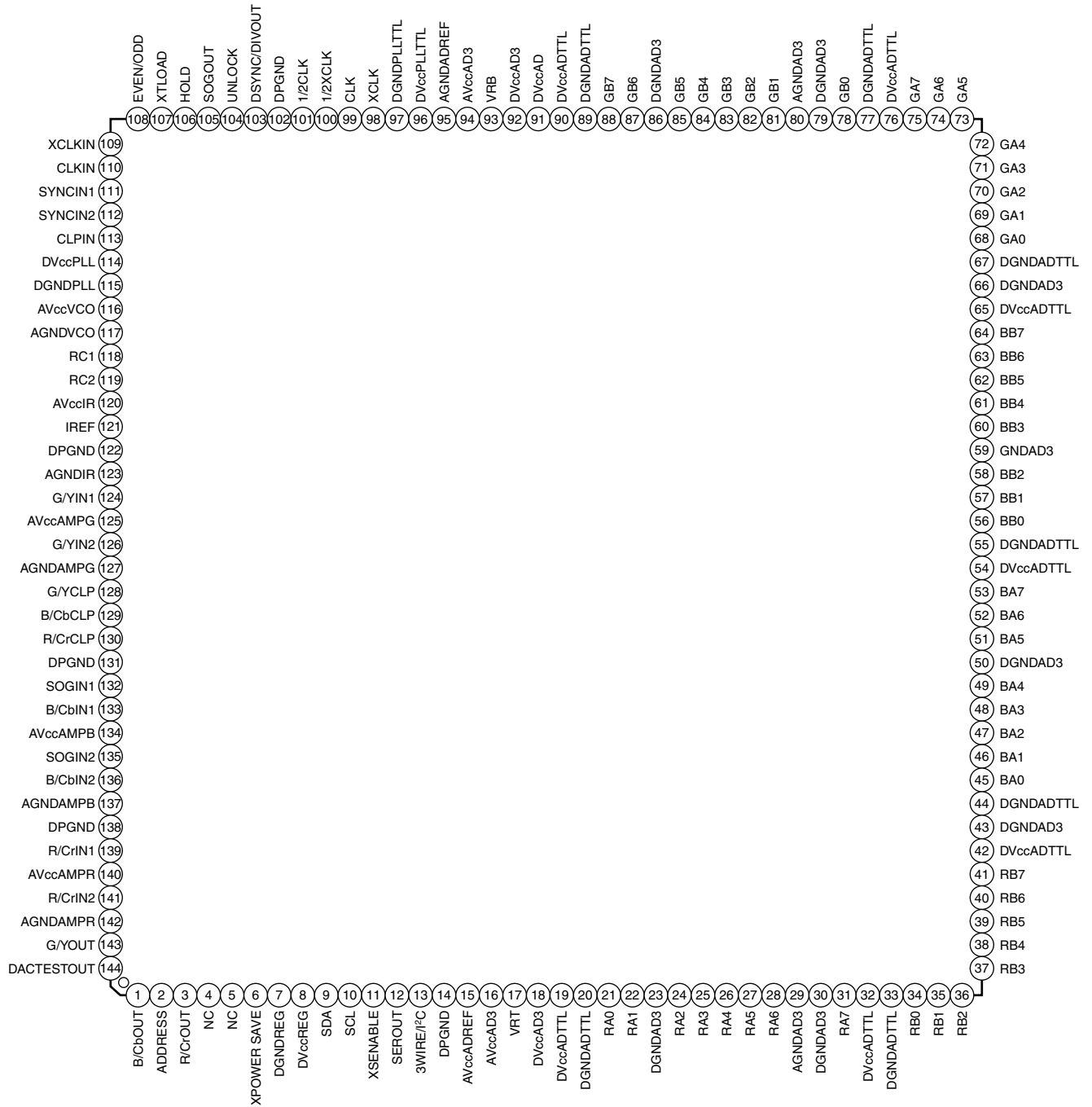
● Pin Function

No.	Pin Name	I/O	Pin Function
57-51, 40-34, 11-6, 78	A ₁₉ - A ₀ , A-1	I	Address input
78-75, 72-65, 62-59, 32-19, 26-19, 16-13	DQ ₃₁ - DQ ₀	I/O	Data input/output
80	CE	I	Chip enable
81	OE	I	Output enable
86	WE	I	Write enable
82	DW/W	I	16 bit, 32 bit mode switch
87	WP	I	Write protect
88	ACC	I	Acceleration
17, 27, 33, 64, 74, 79	V _{SS}	–	Ground
12, 18, 28, 58, 63, 73	V _{CC}	–	Power supply
1-5, 41-50, 83-85, 89, 90	N.C.	–	No connection

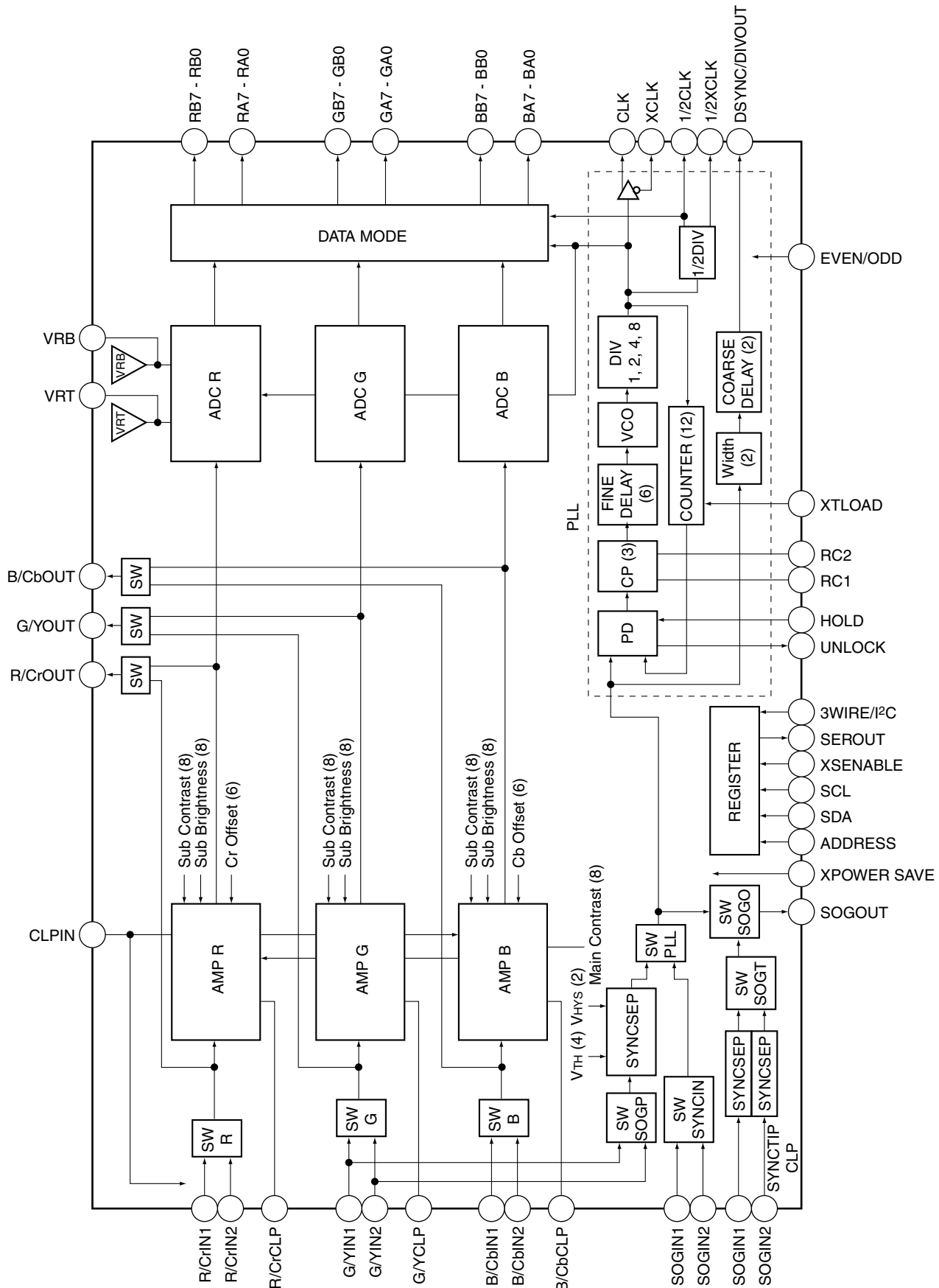
■ CXA3516R (RGB ASSY : IC6001)

• AD + PLL IC

● Pin Arrangement (Top View)



● Block Diagram



● Pin Function

No.	Symbol	I/O	Pin Function
1	B/CbOUT	O	Amplifier output signal monitor
2	ADDRESS	I	I ² C slave address setting
3	R/CrOUT	O	Amplifier output signal monitor
4	NC	–	Not used
5	NC	–	Not used
6	XPOWER SAVE	I	Power save setting
7	DGNDREG	–	Register GND
8	DVccREG	–	Register power supply
9	SDA	I	Control register data input
10	SCL	I	Control register CLK input
11	XSENABLE	I	Enable signal input for 3-wire control register
12	SEROUT	O	3-wire control register data readout
13	3WIRE/I ² C	I	Selection of input between I ² C bus and 3-wire bus
15	AVccADREF	–	Reference power supply for A/D converter
16, 94	AVccAD3	–	Analog power supply for A/D converter
17	VRT	O	Top reference voltage output for A/D converter
18, 92	DVccAD3	–	Digital power supply for A/D converter
19, 32, 42, 54, 65, 76, 90	DVccADTTL	–	TTL output power supply for A/D converter
20, 33, 44, 55, 67, 77, 89	DGNDADTTL	–	TTL output GND for A/D converter
21, 22, 24-28, 31	RA0 - RA7	O	Data output for R-channel port A side
23, 30, 43, 50, 59, 66, 79, 86	DGNDAD3	–	Digital GND for A/D converter
29, 80	AGNDAD3	–	Analog GND for A/D converter
34-41	RB0 - RB7	O	Data output for R-channel port B side
45-49, 51-53	BA0 - BA7	O	Data output for B-channel port A side
56-58, 60-64	BB0 - BB7	O	Data output for B-channel port B side
68-75	GA0 - GA7	O	Data output for G-channel port A side
78, 81-85, 87, 88	GB0 - GB7	O	Data output for G-channel port B side
91	DVccAD	–	Digital power supply for A/D converter
93	VRB	O	Bottom reference voltage output for A/D converter
95	AGNDADREF	–	Reference voltage GND for A/D converter
96	DVccPLLTTTL	–	TTL output power supply for PLL
97	DGNDPLLTTTL	–	TTL output GND for PLL
98	XCLK	O	Inverted CLK output
99	CLK	O	CLK output
100	1/2XCLK	O	Inverted 1/2CLK output
101	1/2CLK	O	1/2CLK output
103	DSYNC/DIVOUT	O	DSYNC or DIVOUT signal output
104	UNLOCK	O	Unlock signal output
105	SOGOUT	O	Output for SYNC ON GREEN
106	HOLD	I	Input for phase comparison disable signal

A

No.	Symbol	I/O	Pin Function
107	XTLOAD	I	Programmable counter reset setting
108	EVEN/ODD	I	Inverted pulse input of ADC sampling CLK
109	XCLKIN	I	Inverted CLK input for testing
110	CLKIN	I	CLK input for testing
111	SYNCIN1	I	Sync input 1
112	SYNCIN2	I	Sync input 2
113	CLPIN	I	Clamp pulse input
114	DVccPLL	–	Digital power supply for PLL
115	DGNDPLL	–	Digital GND for PLL
116	AVccVCO	–	Analog power supply for PLL VCO
117	AGNDVCO	–	Analog GND for PLL VCO
118	RC1	–	External pin for PLL loop filter
119	RC2	–	External pin for PLL loop filter
120	AVccIR	–	Analog power supply for IREF
121	IREF	I	Current setup
123	AGNDIR	–	Analog GND for TREF
124	G/YIN1	I	G/Y signal input 1
125	AVccAMPG	–	Power supply for G/Y amplifier block
126	G/YIN2	I	G/Y signal input 2
127	AGNDAMPG	–	GND for G/Y amplifier block
128	G/YCLP	–	Clamp capacitor for brightness
129	B/CbCLP	–	Clamp capacitor for brightness
130	R/CrCLP	–	Clamp capacitor for brightness
132	SOGIN1	I	SYNC ON GREEN signal input 1
133	B/CbIN1	I	B/Cb signal input 1
134	AVccAMPB	–	Power supply for B/Cb amplifier block
135	SOGIN2	I	SYNC ON GREEN signal input 2
136	B/CbIN2	I	B/Cb signal input 2
137	AGNDAMPB	–	GND for B/Cb amplifier block
139	R/CrIN1	I	R/Cr signal input 1
140	AVccAMPB	–	Power supply for R/Cr amplifier block
141	R/CrIN2	I	R/Cr signal input 2
142	AGNDAMPB	–	GND for R/Cr amplifier block
143	G/YOUT	O	Monitor pin for amplifier output signal
144	DAC TEST OUT	O	DAC testing output for amplifier block control register
14, 102, 122, 131, 138	DPGND	–	GND

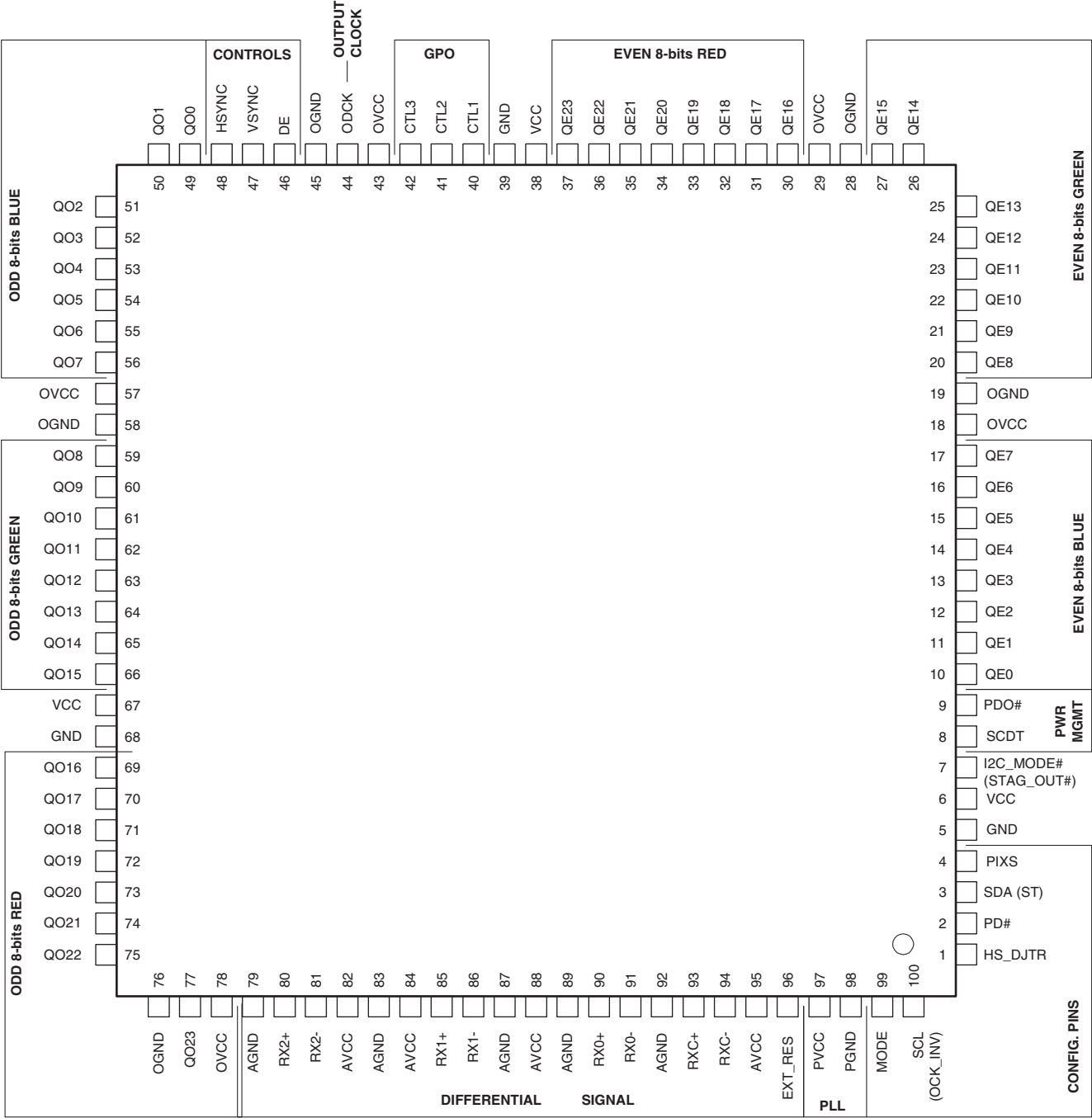
E

F

■ SII116BCTG100 (AV I/O ASSY : IC????)

• Panel Link Receiver IC

● Pin Arrangement (Top View)



● Pin Function

Output Pins

Pin Name	No.	Type	Function
QE23 - QE0	37-30, 27-20, 17-10	Out	Output Even Data[23:0] corresponds to 24-bit pixel data for one pixel per clock input mode and to the first 24-bit pixel data for two pixels per clock mode. Output data is synchronized with output data clock (ODCK). Refer to the TFT Panel Data Mapping section, which tabulates the relationship between the input data to the transmitter and output data from the receiver. A low level on PD# or PDO# will put the output drivers into a high impedance (tri-state) mode. A weak internal pull-down device brings each output to ground.
QO23 - QO0	77, 75-69, 66-59, 56-49	Out	Output Odd Data[23:0] corresponds to the second 24-bit pixel data for two pixels per clock mode. During one pixel per clock mode, these outputs are driven low. Output data is synchronized with output data clock (ODCK). Refer to the TFT Panel Data Mapping section, which tabulates the relationship between the input data to the transmitter and output data from the receiver. A low level on PD# or PDO# will put the output drivers into a high impedance (tri-state) mode. A weak internal pull-down device brings each output to ground.
ODCK	44	Out	Output Data Clock. This output can be inverted using the OCK_INV pin. A low level on PD# or PDO# will put the output driver into a high impedance (tri-state) mode. A weak internal pulldown device brings the output to ground.
DE	46	Out	Output Data Enable. This signal qualifies the active data area. A HIGH level signifies active display time and a LOW level signifies blanking time. This output signal is synchronized with the output data. A low level on PD# or PDO# will put the output driver into a high impedance (tri-state) mode. A weak internal pull-down device brings the output to ground.
HSYNC VSYNC CTL1 CTL2 CTL3	48 47 40 41 42	Out	Horizontal Sync output control signal. Vertical Sync output control signal. General output control signal 1. This output is not powered down by PDO#. General output control signal 2. General output control signal 3. A low level on PD# or PDO# will put the output drivers (except CTL1 by PDO#) into a high impedance (tri-state) mode. A weak internal pull-down device brings each output to ground.

Differential Signal Data Pins

Pin Name	No.	Type	Function
RX0+ RX0- RX1+ RX1- RX2+ RX2-	90 91 85 86 80 81	Analog	Receiver Differential Data Pins. TMDS Low Voltage Differential Signal input data pairs.
RXC+ RXC-	93 94	Analog	Receiver Differential Clock Pins. TMDS Low Voltage Differential Signal input clock pair.
EXT_RES	96	Analog	Impedance Matching Control. An external 390Ω resistor must be connected between AVCC and this pin.

Configuration Pins

Pin Name	No.	Type	Function
MODE	99	In	Mode Select Pin. Used to select between drop-in strap-selected operation, or register programmable operation. To activate register-programmable operation, tie both pin 99 and pin 7 LOW. HIGH=161B (Compatible) Mode – strap selections are used to set part operation. Internal registers controlling non strap-selectable functions are reset to their default values. LOW=1161 (Programmable) Mode – I2C registers are used to program part operation.
OCK_INV	100	In	ODCK Polarity. A LOW level selects normal ODCK output. A HIGH level selects inverted ODCK output. All other output signals are unaffected by this pin. They will maintain the same timing no matter the setting of OCK_INV pin
SCL			I2C Port Clock. When pins 99 and 7 are tied LOW, pin 100 functions as an I2C port input clock. The slave I2C function does not ever try to extend cycles by pulling this pin low, so the pin remains input-only at all times. This pin accepts 3.3V signaling only; it is not 5V-tolerant.
PIXS	4	In	Pixel Select. A LOW level indicates one pixel (up to 24-bits) per clock mode using QE[23:0]. A HIGH level indicates two pixels (up to 48-bits) per clock mode using QE[23:0] for first pixel and QO[23:0] for second pixel.
STAG_OUT#	7	In	Staggered Output. A HIGH level selects normal simultaneous outputs on all odd and even data lines. A LOW level selects staggered output drive. This function is only available in two pixels per clock mode.
I2C_MODE#			This pin must be tied LOW to put the receiver into I2C mode.
ST	3	In/Out	Output Drive. A HIGH level selects HIGH output drive strength. A LOW level selects LOW output drive strength.
SDA			I2C Port Data. When pins 99 and 7 are tied LOW, pin 3 functions as an I2C port data I/O signal. This pin accepts 3.3V signaling only; it is not 5V-tolerant.
HS_DJTR	1	In	HSYNC De-jitter. This pin enables/disables the HSYNC de-jitter function. To enable the HSYNC de-jitter function this pin should be HIGH. To disable the HSYNC de-jitter function this pin should be LOW.

Power Management Pins

Pin Name	No.	Type	Function
SCDT	8	Out	Sync Detect. A HIGH level is outputted when DE is actively toggling indicating that the link is alive. A LOW level is outputted when DE is inactive, indicating the link is down. Can be connected to PDO# to power down the outputs when DE is not detected. The SCDT output itself, however, remains in the active mode at all times.
PDO#	9	In	Output Driver Power Down (active LOW). A HIGH level indicates normal operation. A LOW level puts all the output drivers only (except SCDT and CTL1) into a high impedance (tri-state) mode. A weak internal pull-down device brings each output to ground. PDO# is a sub-set of the PD# description. The chip is not in power-down mode with this pin. SCDT and CTL1 are not tri-stated by this pin.
PD#	2	In	Power Down (active LOW). A HIGH level indicates normal operation. A LOW level indicates power down mode. During power down mode, all the output drivers are put into a high impedance (tri-state) mode. A weak internal pull-down device brings each output to ground. Additionally, all analog logic is powered down, and all inputs are disabled. Driving PD# LOW disables all internal logic and outputs, including SCDT and clock detect functions; it also resets all internal programmable registers to their default states.

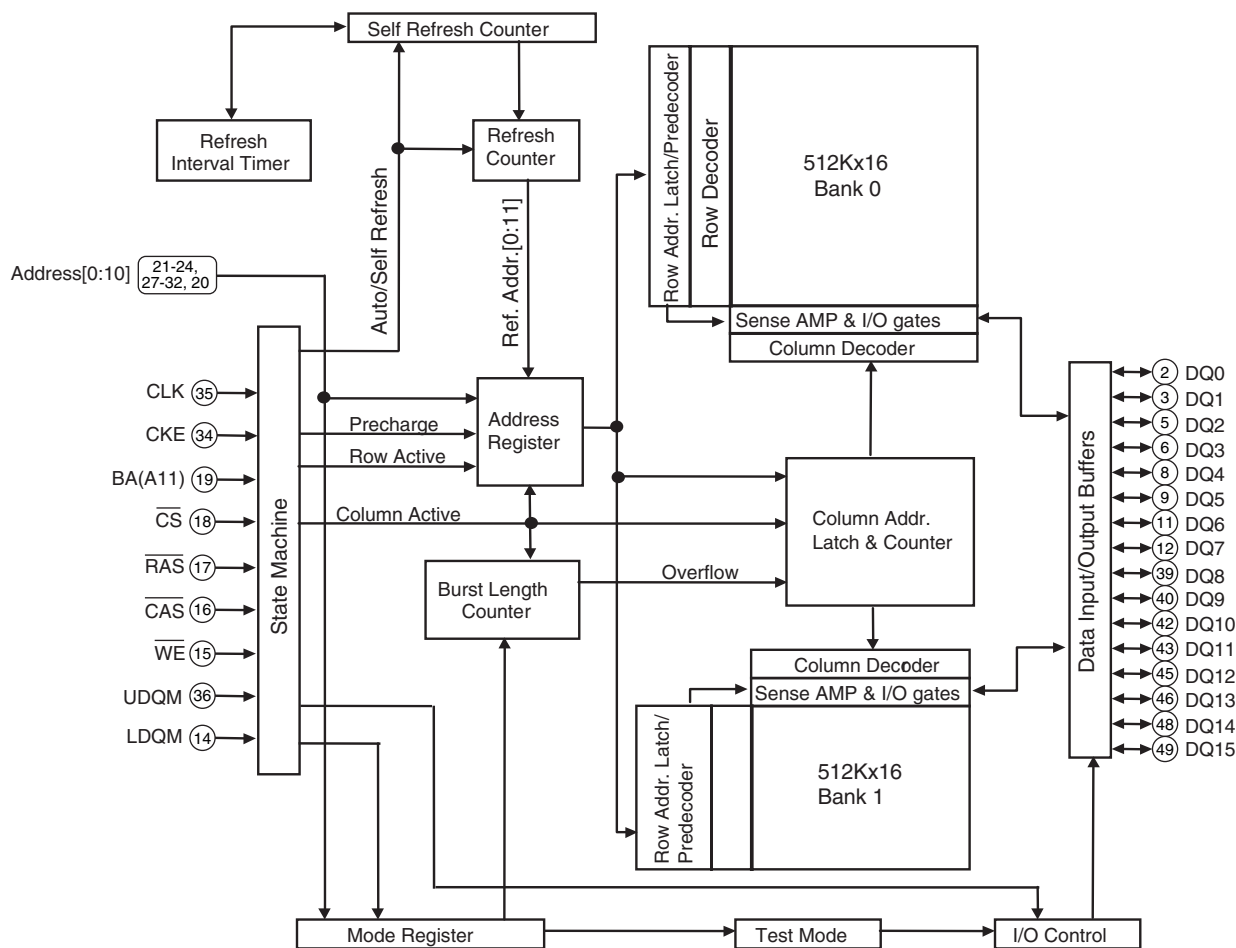
Power and Ground Pins

Pin Name	No.	Type	Function
VCC	6, 38, 67	Power	Digital Core VCC, must be set to 3.3V.
GND	5, 39, 68	Ground	Digital Core GND.
OVCC	18, 29, 43, 57, 78	Power	Output VCC, must be set to 3.3V.
OGND	19, 28, 45, 58, 76	Ground	Output GND.
AVCC	82, 84, 88, 95	Power	Analog VCC must be set to 3.3V.
AGND	79, 83, 87, 89, 92	Ground	Analog GND.
PVCC	97	Power	PLL Analog VCC must be set to 3.3V.
PGND	98	Ground	PLL Analog GND.

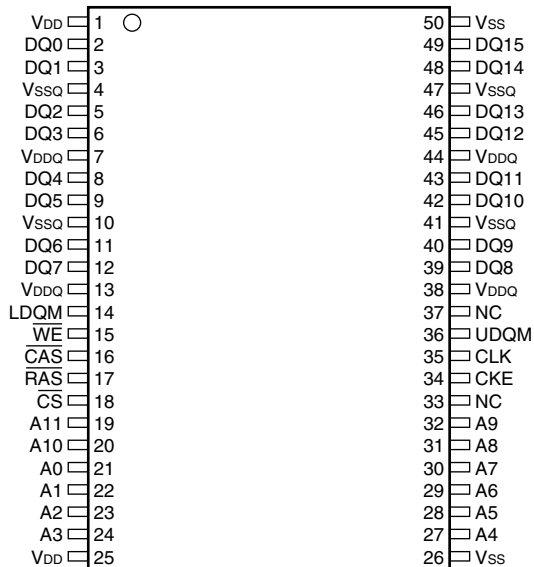
HY57V161610DTC-8 (VIDEO SLOT1 ASSY : IC6106) **(VIDEO SLOT2 ASSY : IC6106)**

A • 16M SDRAM

● Block Diagram



● Pin Arrangement

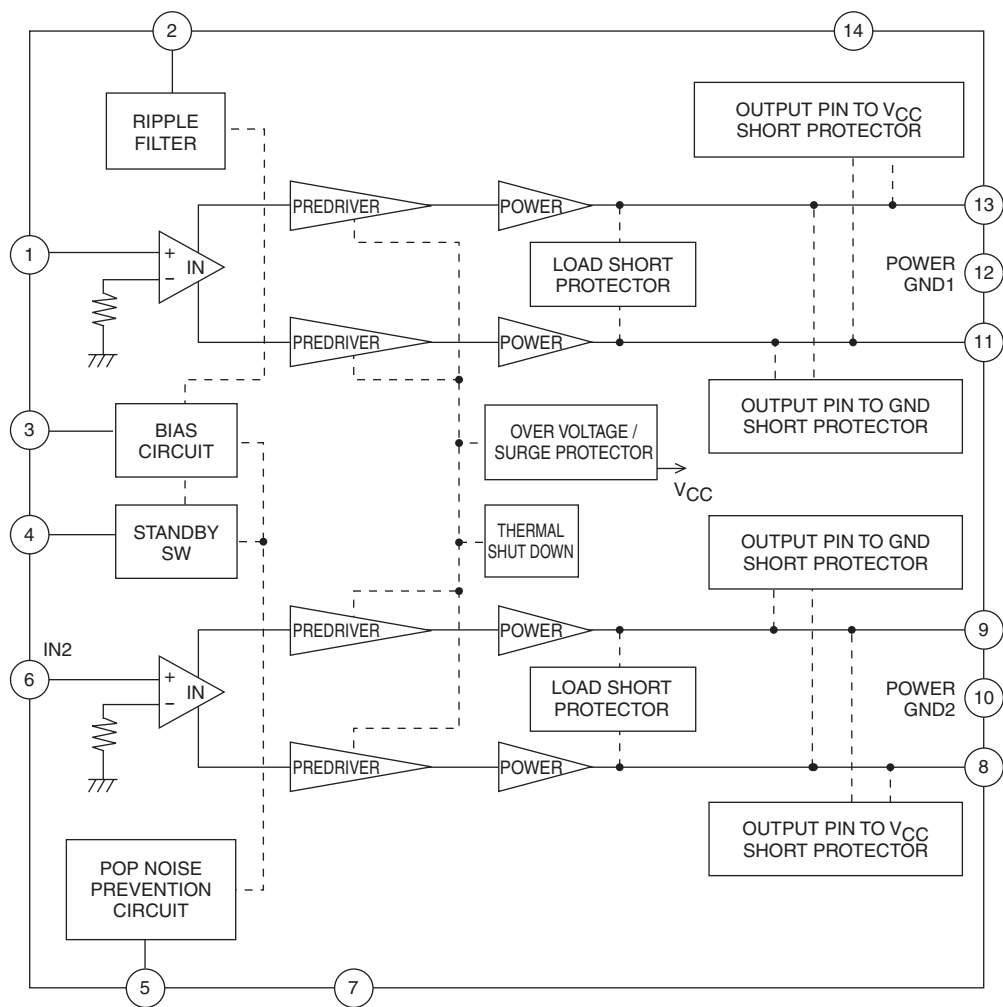


● Pin Function

No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply
2	DQ0	I/O	Data input/output
3	DQ1	I/O	Data input/output
4	VSSQ	–	Ground for DQ
5	DQ2	I/O	Data input/output
6	DQ3	I/O	Data input/output
7	VDDQ	–	Power supply for DQ
8	DQ4	I/O	Data input/output
9	DQ5	I/O	Data input/output
10	VSSQ	–	Ground for DQ
11	DQ6	I/O	Data input/output
12	DQ7	I/O	Data input/output
13	VDDQ	–	Power supply for DQ
14	LDQM	I	Data input/output mask
15	/WE	I	Write enable
16	/CAS	I	Column address strobe
17	/RAS	I	Row address strobe
18	/CS	I	Chip select input
19	A11	I	Address input
20	A10	I	Address input
21	A0	I	Address input
22	A1	I	Address input
23	A2	I	Address input
24	A3	I	Address input
25	VDD	–	Power supply
26	VSS	–	Ground
27	A4	I	Address input
28	A5	I	Address input
29	A6	I	Address input
30	A7	I	Address input
31	A8	I	Address input
32	A9	I	Address input
33	NC	–	No connection
34	CKE	I	Clock enable
35	CLK	I	System clock input
36	UDQM	I	Data input/output mask
37	NC	–	No connection
38	VDDQ	–	Power supply for DQ
39	DQ8	I/O	Data input/output
40	DQ9	I/O	Data input/output
41	VSSQ	–	Ground for DQ
42	DQ10	I/O	Data input/output
43	DQ11	I/O	Data input/output
44	VDDQ	–	Power supply for DQ
45	DQ12	I/O	Data input/output
46	DQ13	I/O	Data input/output
47	VSSQ	–	Ground for DQ
48	DQ14	I/O	Data input/output
49	DQ15	I/O	Data input/output
50	VSS	–	Ground

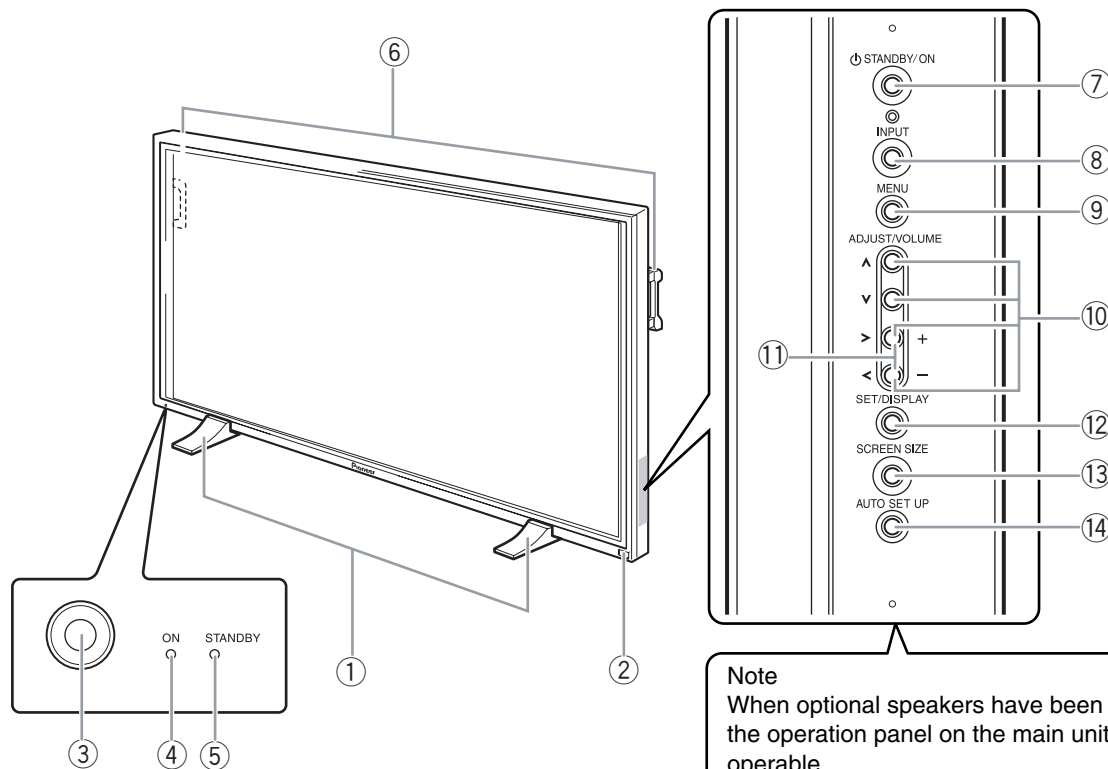
LA4625 (AUDIO AMP ASSY : IC5003)

• 2ch BLT AF Power Amp. IC

● **Block Diagram**

8. PANEL FACILITIES

■ MAIN UNIT



Main unit

① Display stand

② Remote control sensor

Point the remote control toward the remote sensor to operate the unit .

③ Ambient light sensor

This sensor measures the level of light inside the viewing room; it is enabled when the [ENERGY SAVE] option is set to [AUTO] .

④ ON indicator

Lights green when the plasma display is operating. When flashing, the indicator is used to indicate error messages. The indicator flashes green once every two seconds when the [POWER MANAGEMENT] function is operating.

⑤ STANDBY indicator

Lights red when the unit is in standby mode. When flashing, the indicator is used to indicate error messages.

⑥ Handles

The plasma displays PDP-50MXE1/PDP-50MXE1-S and PDP-43MXE1/PDP-43MXE1-S utilize differing methods of handle attachment, but the handles themselves are used in the same way. Operation panel on the main unit

⑦ STANDBY/ON button

Press to put the display in operation or standby mode.

Operation panel on the main unit

⑧ INPUT button

Press to select the input.

⑨ MENU button

Press to open and close the on-screen menu.

⑩ ADJUST (▲ / ▼ / ► / ◄) buttons

Use these buttons to move the onscreen cursor between selection options, and to perform adjustments. Instructions for use are given with each command option onscreen.

⑪ VOLUME (+/-) buttons

When not indicated for use in onscreen menu items, these buttons are used for adjusting the sound volume.

⑫ SET/DISPLAY button

Use to confirm onscreen menu selections, and to change settings. When not indicated by onscreen menus, used to display the current set status.

⑬ SCREEN SIZE button

Press to select the screen size.

⑭ AUTO SET UP button

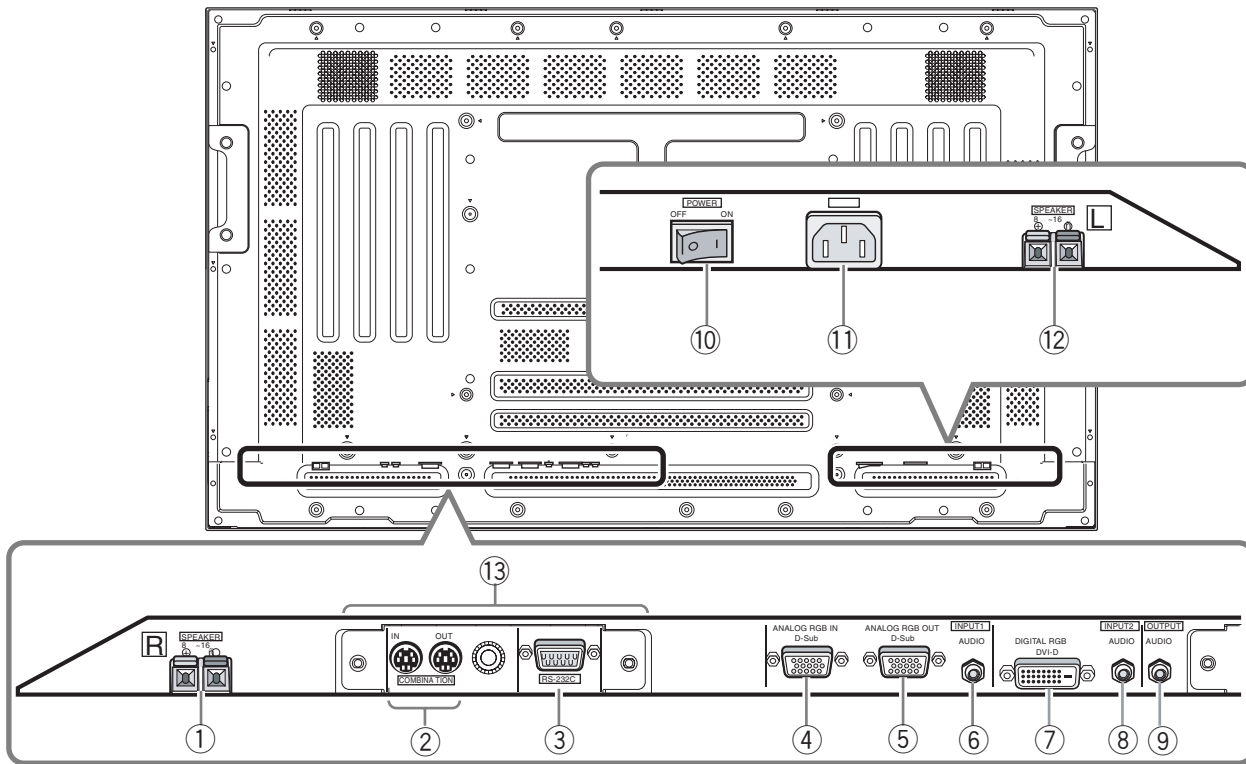
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.

■ CONNECTION PANEL (PLASMA DISPLAY SECTION)

A

B

C



Plasma Display Section

The plasma display is provided with 2 video input connectors, 1 video output connector, audio input/output jacks and speaker terminals.

When this video card is installed on a plasma display, an additional three sets of video input connectors are provided (total five), together with one additional video output connector (total two).

① SPEAKER (R) terminal

For connection of an external right speaker.
Connect a speaker that has an impedance of 8 -16 Ω .

② COMBINATION IN/OUT

Never connect any component to these connectors without first consulting your Pioneer installation technician.
These connectors are used in the factory setup.

③ RS-232C

Never connect any component to this connector without first consulting your Pioneer installation technician.
This connector is used in the factory setup.

④ ANALOG RGB IN (INPUT1) (mini D-sub 15 pin)

For connection of a personal computer (PC) or similar component. Make sure that the connection made corresponds to the format of the signal output from the connected component.

⑤ ANALOG RGB OUT (INPUT1) (mini D-sub 15 pin)

Use the ANALOG RGB OUT (INPUT1) terminal to output the video signal to an external monitor or other component.
Note: The video signal will not be output from the ANALOG RGB OUT (INPUT1) terminal when the main power of this unit is off or in standby mode.

⑥ AUDIO (INPUT1) (Stereo mini jack)

Use to obtain sound when INPUT1 is selected.
Connect the audio output jack of components connected to INPUT1 to this unit.

⑦ DIGITAL RGB (INPUT2) (DVI-D jack)

Use to connect a computer.
Note: This unit does not support the display of copyguard-protected video signals.

⑧ AUDIO (INPUT2) (Stereo mini jack)

Use to obtain sound when INPUT2 is selected.
Connect the audio output jack of components connected to INPUT2 to this unit.

⑨ AUDIO (OUTPUT) (Stereo mini jack)

Use to output the audio of the selected source component connected to this unit to an AV amplifier or similar component.

⑩ MAIN POWER switch

Use to switch the main power of the unit on and off.

⑪ AC IN

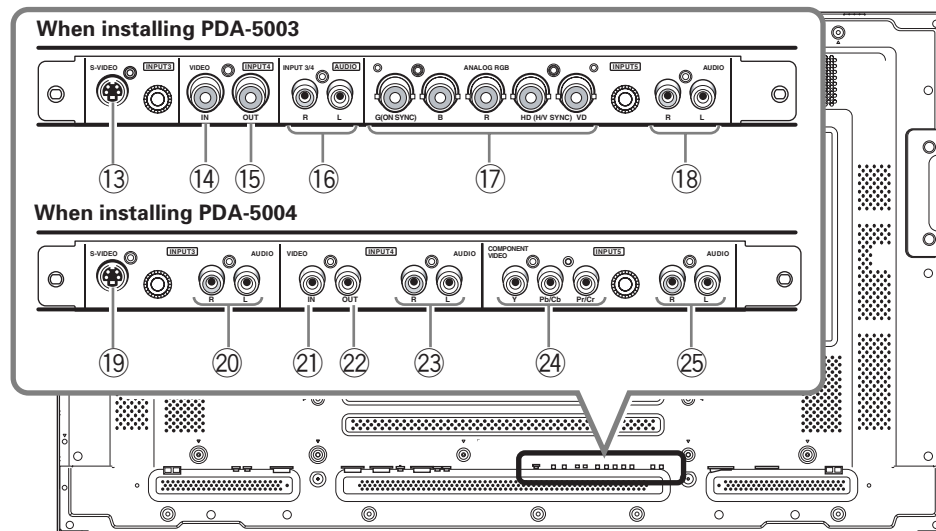
Use to connect a power cord to an AC outlet.

⑫ SPEAKER (L) terminal

For connection of an external left speaker. Connect a speaker that has an impedance of 8 -16 Ω .

F

■ CONNECTION PANEL (VIDEO CARD SECTION: PDA5003, PDA-5004)



Video Card <PDA-5003> Section

The video card is provided with 3 video input connectors, 1 video output connector, and 2 audio input connectors. Consult the pages noted in parentheses () for details regarding connections to the various jacks and connectors.

⑬ S-VIDEO (INPUT3) (S-video jack)

For connection of components that have an S-video output jack such as a video deck, video camera, laser disc player, or DVD recorder).

⑭ VIDEO IN (INPUT4) (BNC jack)

For connection of components that have a composite video output jack such as a video deck, video camera, laser disc player, or DVD recorder.

⑮ VIDEO OUT (INPUT4) (BNC jack)

Use the VIDEO OUT (INPUT4) jack to output the video signal to an external monitor or other component.
Note: The video signal will not be output from the VIDEO OUT (INPUT4) jack when the main power of this display is off or in standby mode.

⑯ AUDIO R/L (INPUT3/4) (RCA Pin jacks)

Use to obtain sound when INPUT3 or INPUT4 is selected. Connect these jacks to the audio output connectors of components connected to the video card's INPUT3 or INPUT4.

Note: The left audio channel (L) jack is not compatible with monaural input sources.

⑰ ANALOG RGB (INPUT5) (BNC jacks)

For connecting components equipped with RGB outputs jacks, such as a personal computer or external RGB decoder; or components equipped with component output jacks, such as a DVD recorder.

Make sure that the connection made corresponds to the format of the signal output from the connected component.

⑱ AUDIO R/L (INPUT5) (RCA Pin jacks)

Use to obtain sound when INPUT5 is selected. Connect these jacks to the audio output connectors of components connected to the video card's INPUT5.

Note: The left audio channel (L) jack is not compatible with monaural input sources.

Video Card <PDA-5004> Section

The video card is provided with 3 video input connectors, 1 video output connector, and 3 audio input connectors. Consult the pages noted in parentheses () for details regarding connections to the various jacks and connectors.

⑲ S-VIDEO (INPUT3) (S-video jack)

For connection of components that have an S-video output jack such as a video deck, video camera, laser disc player, or DVD recorder.

⑳ AUDIO R/L (INPUT3) (RCA Pin jacks)

Use to obtain sound when INPUT3 is selected. Connect these jacks to the audio output connectors of components connected to the video card's INPUT3.

Note: The left audio channel (L) jack is not compatible with monaural input sources.

㉑ VIDEO IN (INPUT4) (RCA Pin jack)

For connection of components that have a composite video output jack such as a video deck, video camera, laser disc player, or DVD recorder.

㉒ VIDEO OUT (INPUT4) (RCA Pin jack)

Use the VIDEO OUT (INPUT4) jack to output the video signal to an external monitor or other component.

Note: The video signal will not be output from the VIDEO OUT (INPUT4) jack when the main power of this display is off or in standby mode.

㉓ AUDIO R/L (INPUT4) (RCA Pin jacks)

Use to obtain sound when INPUT4 is selected. Connect these jacks to the audio output connectors of components connected to the video card's INPUT4.

Note: The left audio channel (L) jack is not compatible with monaural input sources.

㉔ COMPONENT VIDEO (INPUT5) (RCA Pin jacks)

For connection of components that have component video output jacks such as a DVD recorder.

㉕ AUDIO R/L (INPUT5) (RCA Pin jacks)

Use to obtain sound when INPUT5 is selected. Connect these jacks to the audio output connectors of components connected to the video card's INPUT5.

Note: The left audio channel (L) jack is not compatible with monaural input sources.

■ REMOTE CONTROL UNIT

A

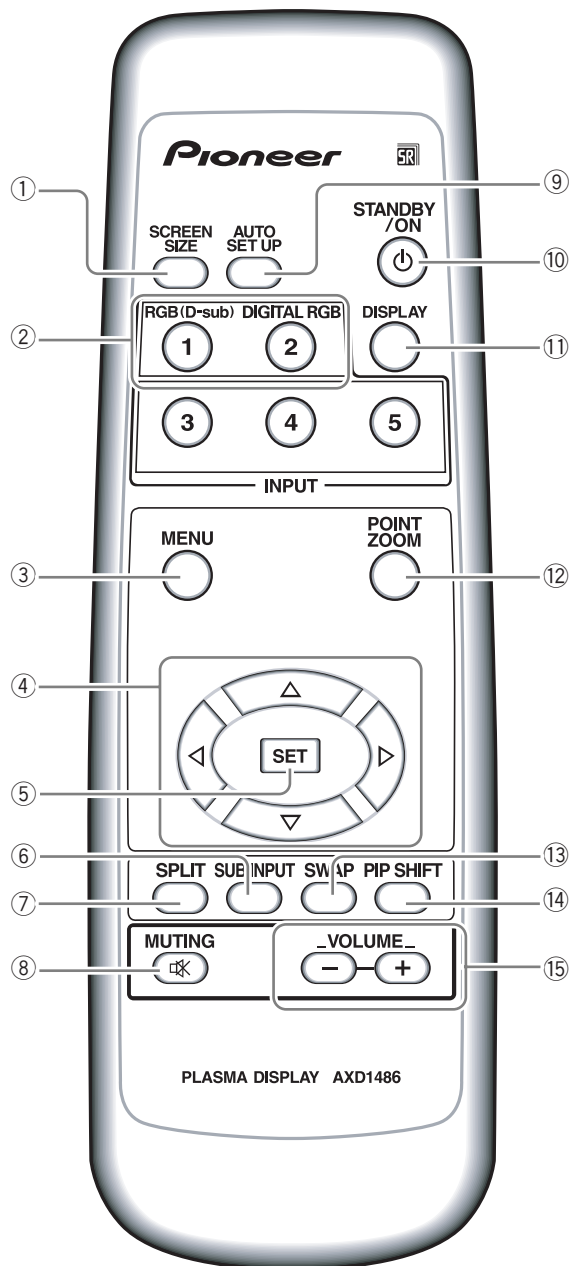
B

C

D

E

F



① SCREEN SIZE button

Press to select the screen size.

② INPUT buttons

Press to select the input .

③ MENU button

Press to open and close the on-screen menu.

④ ADJUST (▲ / ▼ / ► / ◄) buttons

Use to navigate menu screens and to adjust various settings on the unit.

Usage of cursor buttons within operations is clearly indicated at the bottom the on-screen menu display.

⑤ SET button

Press to adjust or enter various settings on the unit.

⑥ SUB INPUT button

During multi-screen display, use this button to change inputs to subscreens.

⑦ SPLIT button

Press to switch to multi-screen display.

⑧ MUTING button

Press to mute the volume.

⑨ AUTO SET UP button

When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.

⑩ STANDBY/ON button

Press to put the unit in operation or standby mode.

⑪ DISPLAY button

Press to view the unit's current input and setup mode.

⑫ POINT ZOOM button

Use to select and enlarge one part of the screen.

SWAP button During multi-screen display, use this button to switch between main screen and subscreen.

⑭ PIP SHIFT button

When using PinP mode with multi-screen display, use this button to move the position of subscreen.

⑮ VOLUME (+/-) buttons

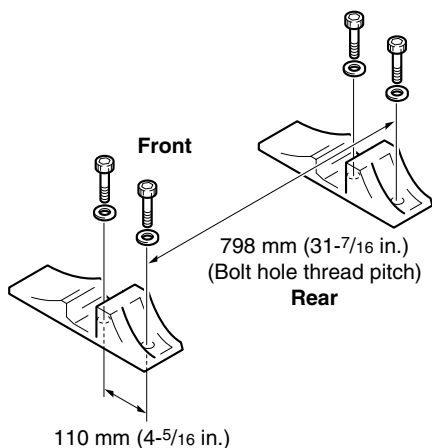
Use to adjust the volume.

■ INSTALLATION OF THE UNIT

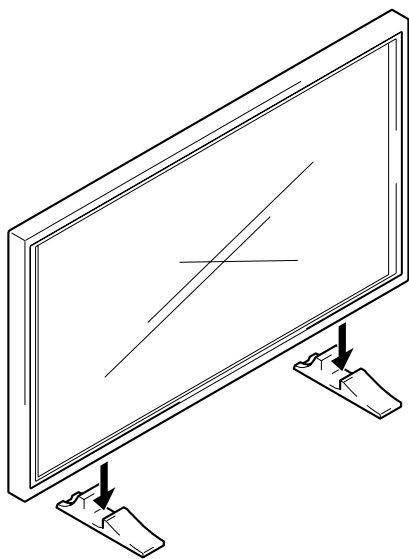
Installation using the supplied display stand

Be sure to fix the supplied stand to the installation surface. Use commercially available M8 bolts that are 25 mm longer than the thickness of the installation surface.

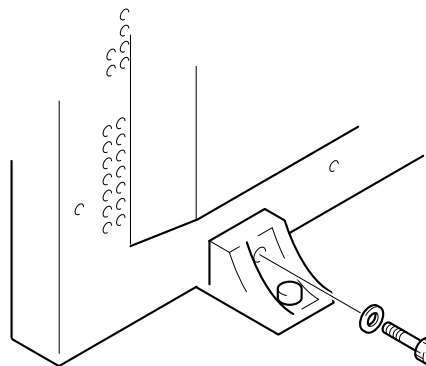
1. Fix the supplied stand to the installation surface at each of the 4 prepared holes using commercially available M8 bolts .



2. Set this unit in the stand.



3. Fix this unit using the supplied washer and bolt.



Use a 6 mm ($\frac{1}{4}$ in.) hex wrench to bolt them.



CAUTION

This display unit weighs at least 30 kg (67 lbs) and has little front-to-back depth, making it very unstable when stood on edge. As a result, two or more persons should cooperate when unpacking, moving, or installing the display.

Installation using the optional PIONEER stand or installation bracket

- Please be sure to request installation or mounting of this unit or the installation bracket by an installation specialist or the dealer where purchased.
- When installing, be sure to use the bolts provided with the stand or installation bracket.
- For details concerning installation, please refer to the instruction manual provided with the stand or installation bracket.

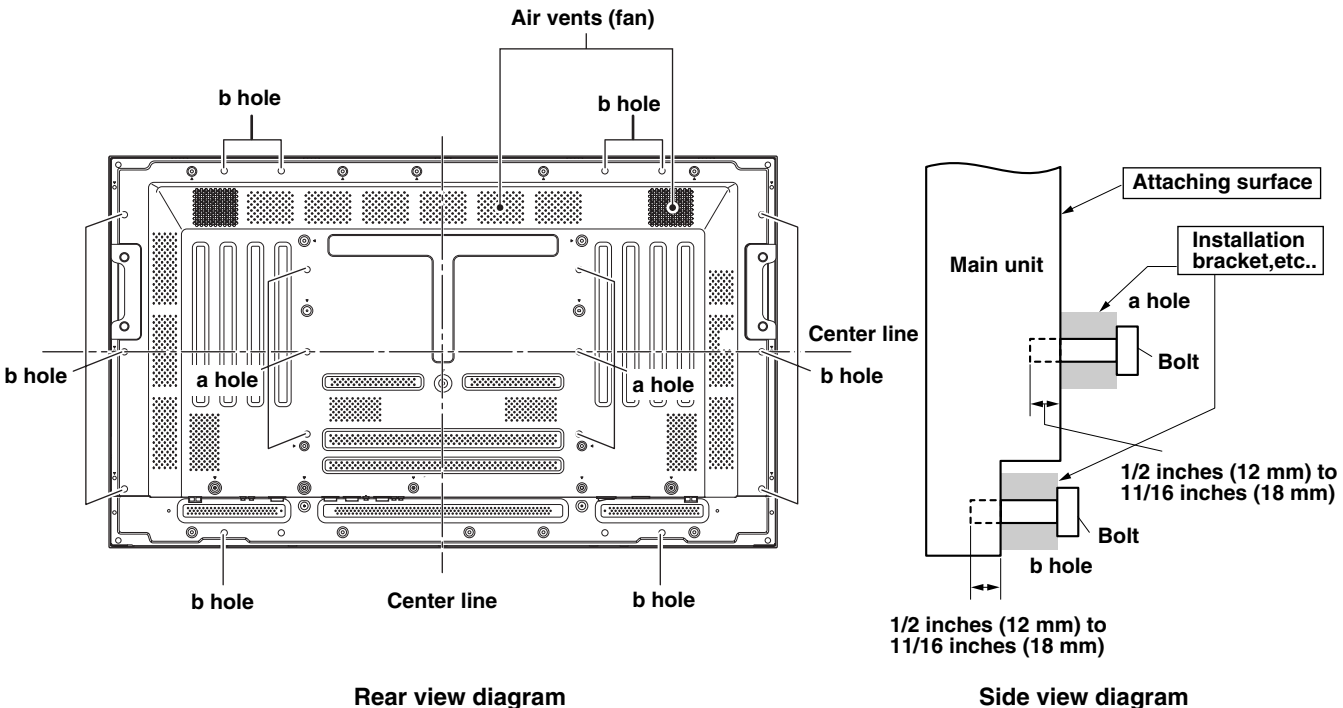
Installation using accessories other than the PIONEER stand or installation bracket (sold separately)

- When possible, please install using parts and accessories manufactured by PIONEER. PIONEER will not be held responsible for accident or damage caused by the use of parts and accessories manufactured by other companies.
- For custom installation, please consult the dealer where the unit was purchased, or a qualified installer.

Wall-mount installation of the unit

This unit has been designed with bolt holes for wall-mount installation, etc.. The installation holes that can be used are shown in the diagram below.

- Be sure to attach in 4 or more locations above and below, left and right of the center line.
- Use bolts that are long enough to be inserted 1/2 inch (12 mm) to 11/16 inch (18 mm) into the main unit from the attaching surface for both a holes and b holes. Refer to the side view diagram below.
- As this unit is constructed with glass, be sure to install it on a flat, unwarped surface.



CAUTION

To avoid malfunction, overheating of this unit, and possible fire hazard, make sure that the vents on the main unit are not blocked when installing. Also, as hot air is expelled from the air vents, be careful of deterioration and dirt build up on rear surface wall, etc..

CAUTION

Please be sure to use an M8 (Pitch = 1.25 mm) bolt. (Only this size bolt can be used.)

CAUTION

Because this unit weighs about 88 lbs 3 oz (about 40 kg) and the lack of depth makes it fairly unstable, please use 2 people or more when packing, carrying or installing.

CAUTION

This unit incorporates a thin design. To ensure safety if vibrated or shaken, please be sure to take measures to prevent the unit from tipping over.